

150 L15ph

Keep Your Card in This Pocket

Books will be issued only on presentation of proper library cards.

2 Unless labeled otherwise, books may be retained for ~~four~~ weeks. Borrowers finding books marked, defaced or mutilated are expected to report same at library desk; otherwise the last borrower will be held responsible for all imperfections discovered.

The card holder is responsible for all books drawn on this card.

Penalty for over-due books 2c a day plus cost of notices.

Lost cards and change of residence must be reported promptly.



Public Library
Kansas City, Mo.

Keep Your Card in This Pocket

BERNHEIMER ENVELOPE CO. K. C., MO.



86

NOV 16 19 36

DEC 16 '60 9 14

JAN 6 43 24

FEB 2 '44 58

~~MAR 31 '47~~

11/16/57

114 APR 14 1971

1944 11 3 5

JUL 21 '48 98

AUG 31 1948 52

MAI MAY 7 1977

PHILOSOPHY OF MIND

PROFESSOR LADD'S WORKS.

PHILOSOPHY OF MIND. An Essay in the Metaphysics of Psychology. 8vo. \$3.00.

INTRODUCTION TO PHILOSOPHY. An Inquiry after a Rational System of Scientific Principles in their Relation to Ultimate Reality. 8vo. \$3.00.

PRIMER OF PSYCHOLOGY. 12mo. \$1.00 *net*.

PSYCHOLOGY; DESCRIPTIVE AND EXPLANATORY. A Treatise of the Phenomena, Laws, and Development of Human Mental Life. 8vo. \$4.50.

OUTLINES OF PHYSIOLOGICAL PSYCHOLOGY. A Text-book on Mental Science for Academies and Colleges. Illustrated. 8vo. \$2.00.

ELEMENTS OF PHYSIOLOGICAL PSYCHOLOGY. A Treatise of the Activities and Nature of the Mind, from the Physical and Experimental Point of View. With numerous illustrations. 8vo. \$4.50.

THE DOCTRINE OF SACRED SCRIPTURE. A Critical, Historical, and Dogmatic Inquiry into the Origin and Nature of the Old and New Testaments. 2 vols. 8vo. \$7.00.

WHAT IS THE BIBLE? An Inquiry into the Origin and Nature of the Old and New Testaments in the Light of Modern Biblical Study. 12mo. \$2.00.

THE PRINCIPLES OF CHURCH POLITY. Crown 8vo. \$2.50.

PHILOSOPHY OF MIND
AN ESSAY
IN
THE METAPHYSICS OF PSYCHOLOGY

BY
GEORGE TRUMBULL LADD
PROFESSOR OF PHILOSOPHY IN YALE UNIVERSITY

NEW YORK
CHARLES SCRIBNER'S SONS
1895

Copyright, 1895, by
CHARLES SCRIBNER'S SONS.

113740

150
L15ph

GREENWICH
Collection

University Press:
JOHN WILSON AND SON, CAMBRIDGE, U. S. A.

No

555517

“ Heilig achten wir die Geister, aber Namen sind uns Dunst ;
Würdig ehren wir die Meister, aber frei ist uns die Kunst.”

UHLAND.

P R E F A C E

THIS book is an essay in the speculative treatment of certain problems, suggested but not usually discussed in the course of a thorough empirical study of mental phenomena. Inasmuch as these problems all relate to the real nature and actual performances and relations of the human mind, the essay may properly be called metaphysical. Let it be confessed, then, that the author comes forward with a treatise in metaphysics, — in the more special meaning of that term. I think, however, that in spite of the marked disfavor into which all metaphysics has fallen in certain quarters, no detailed apology for asking readers for such a treatise need be offered in its Preface. Indeed, the first two chapters of the book are occupied in showing how inevitable is the demand which the science of psychology makes for a further philosophical discussion of all its principal problems. If, then, this demand is not made perfectly clear by the more detailed discussion which follows, it would be quite useless to put it forward unsupported, at the beginning of my task, in the hope of producing a favorable first impression upon reluctant intelligences.

As to the kind of metaphysics which it is designed to offer, two or three preliminary remarks seem important. And, first of all, it is to be open and undisguised. Of all “bad” meta-

physics, the very worst is likely to be that which is unavowed and concealed, — sometimes even from the author himself, while as yet he is engaged in criticising the metaphysical views of others, or in denouncing metaphysical essays in general. No one whose peace of mind is sure to be disturbed by any attempt, however carried out, at this form of reflective thinking should venture beyond the titlepage and table of contents of this volume. On the other hand, however, I wish to be held responsible for two things which are required in order to entitle to respect every treatise of a similar character. These are, first, the statement of the facts and laws, scientifically established, to which the speculative discussion constantly refers for its own grounds in experience. And for metaphysics which has no foundations in incontestable experience, I have as little respect as has any one. But besides this constant appeal to facts and to laws empirically established, sound reasoning is indispensable for the derivation of acceptable conclusions in any metaphysical enterprise. Any reader, or critic, therefore, who will point out violations of either of these two requirements, will be entitled to grateful recognition for his service, no less by the author than by the readers of this volume.

A few words concerning the relations which this book sustains to preceding works by the same author will be helpful for its better understanding. In some sort the entire volume may be regarded as in continuation of a series of works¹ on psychology, or the science of mental phenomena. This science, which, as a *science*, is, and ever must remain, chiefly descriptive, starts many inquiries regarding the real nature and relations to the external world, and especially to the

¹ Elements of Physiological Psychology, 1887 ; Outlines of Physiological Psychology, 1891 ; Psychology, Descriptive and Explanatory, 1894 ; Primer of Psychology, 1894. (All published by Chas. Scribner's Sons.)

body, of that subject of all the phenomena, which we are accustomed to call "the mind." The partial consideration, at least, of such inquiries is extremely difficult to separate from the attempt at anything like a comprehensive treatment of psychology. But these very inquiries can be carried only a little way before they become so inextricably mingled with comprehensive problems in general philosophy as to make us aware that we are already at some distance from that form of discussion which is appropriate to a descriptive science.

The discovery just noted shows the necessity which every attempt at a metaphysics of mental phenomena feels of borrowing certain conclusions from the general field of philosophy. This necessity is made apparent, and it is also acted upon, in the chapters on the reality, the identity, the unity, and the permanence of the mind, and on the real relations of the mind to the bodily organism. Hence the discussions of this volume not infrequently refer to views briefly stated or hinted at in a work on philosophy¹ by the same author.

The nature of psychology, however, and the nature of philosophy, and especially the nature of the relations existing between the two, are such as to make it undesirable, if not impossible, to consider in one book all the metaphysical problems which this empirical science suggests. Indeed, the whole sphere of philosophical study scarcely does more than this. A somewhat but not wholly arbitrary selection of problems had, therefore, to be made; and their detailed discussion was then brought under the one title, "Philosophy of Mind." The reasons for the selection are made sufficiently clear in the course of the discussion itself.

Finally, I do not believe that special students of psychology, whether beginners or advanced students, and thoughtful men

¹ Introduction to Philosophy, 1890. Chas. Scribner's Sons.

generally, lack interest in the metaphysical inquiries which are undertaken in this treatise. The fashion of denouncing the study of metaphysics, or of the theory of knowledge, or, indeed, of any group of the profounder philosophical problems, is more the scholastic "fad" of blasé minds, or the refuge of weak and selfish spirits, than the result of any genuine lack of interest, on the part of the multitude of thinkers, in the earnest discussion of these problems. Such persons become agnostic, or resort to a demand for unquestioning faith, at the point where they themselves begin to be baffled or tired in the effort at thinking. As to the limits and validity of knowledge men will always eagerly inquire. To rebuke them for this seems, in the light of the history of human reason, like solemn trifling. In the face of the regnant agnosticism, no inquiries can be more obligatory or more important than those which concern a theory of cognition. And while so many, in the name of science, are denying the reality, unity, and possibility of a permanent existence of the human mind, and are resolving its entire being into a stream of mechanically associated "epiphenomena," thrown off from the molecular machinery of the cerebral hemispheres, it is not an inopportune time, or a wholly useless and thankless task, to propose a serious re-discussion like that undertaken in this volume.

GEORGE TRUMBULL LADD.

YALE UNIVERSITY, New Haven, 1895.

TABLE OF CONTENTS

CHAPTER I

PSYCHOLOGY AND THE PHILOSOPHY OF MIND

	PAGE
The Opinion of Kant — Psychology "without Metaphysics" — Assumptions involved — The Course taken by the Physical Sciences — Inconsistencies of Mr. Huxley — Peculiar Difficulties of Psychology — Professor Höfding criticised — Views of Professor James — M. Flournoy's Position examined — Principle of "Psycho-physical Parallelism" — Contrasted Views . . .	1

CHAPTER II

PSYCHOLOGY AND THE PHILOSOPHY OF MIND (*continued*)

Difficulties examined — The two Courses open — Views of Volkmann — Views of Wundt — The true Conception of Psychology — Use of Metaphysical Assumptions in Psychology — Psychology as a "Natural Science" — Nature of Philosophy — Relation of Philosophy to the particular Sciences — Mr. Spencer's View of Philosophy — Special Relations of Psychology to Philosophy — Branches of Metaphysics involved — The Problems of a Philosophy of Mind	41
---	----

CHAPTER III

THE CONCEPT OF MIND

Popular use of the term "Mind" — Standpoint for Inquiry — Psychology not mere doctrine of "Content" — All mental life an Activity — Nature of Conception in general — Nature of Self-knowledge — Formation and Development of the concept of Mind — False or inadequate Views examined — The higher Knowledge of Self	83
---	----

CHAPTER IV

THE REALITY OF MIND

PAGE

The concept of Reality — Knowledge and Reality correlates — Of <i>real</i> Beings in general — What is it to be "Real"? — The Foundations in experience — Reality an implicate of Self-consciousness — Of recognitive Memory — And of reflective Thinking — Sceptical and Agnostic Views criticised — The contrasted Reality of Things — True Nature of the mind's Reality	113
--	-----

CHAPTER V

THE CONSCIOUSNESS OF IDENTITY, AND SO-CALLED DOUBLE CONSCIOUSNESS

The concept of Identity — The identity which Things have — Immanent Idea an implicate of identity — The concept of Self as self-same — Permissible Changes in Personality so-called — Identity of Things and of Minds Contrasted — Phenomena of so-called "Double Consciousness" — And the true scientific Attitude toward them — Principle of "psychical Automatism" — Phenomena of Inspiration, "Possession," "Obsession," etc. — "Dramatic Sundering of the Ego" — Play of Children — Phenomena of Dreams — Experience of Actors — Phenomena of Prophetism — Parallel from Ethical Consciousness — Explanation of Hypnotism — Loss of Personal Identity	148
--	-----

CHAPTER VI

THE UNITY OF MIND

The concept of Unity — The unity which Things have — Unitary Being of Mind — Development of mental unity — Ethical Conclusions from the foregoing investigations — Possibility of Degrees of Reality — And of mental Unitary Being — Teleological Principle involved — Simplicity and Indivisibility of Mind	189
--	-----

CHAPTER VII

MIND AND BODY

Reality of "Relations" in general — Attempts at a non-metaphysical use of the Principle of Causation — Current conception of Causation in the Physical Sciences — View of Phenomenalism — Law of the Conservation of Energy — Correlation of Energy — Origin of the concept of Causation — Development of the concept of Causation — Work of Intellect upon the World of Things — Principle of "Sufficient Reason" — Summary of Results	208
---	-----

CHAPTER VIII

MIND AND BODY (*continued*)

	PAGE
Classes of Phenomena discussed — Phenomena of "Concomitant Correlation" so-called, rejected — No absolute Concomitance demonstrable — Formation of two concepts, Body and Mind — Development of this "Bi-partition" or "Diremption" — The concept of Body an Abstraction — The Body only formally distinct from Nature — All Metaphysics involved in the Validity of this "bi-partition" — Influences of body on mind — Factors in mental Life not represented in the bodily Basis — Influences of mind on body — "Dynamo-genetic" Influence of Ideas — The Principle of "Suggestion" — Influences from Feeling and Will	237

CHAPTER IX

MATERIALISM AND SPIRITUALISM

Use of Terms defended — Limits of the Discussion — The four Forms of speculative Opinion — Materialism, Spiritualism, Monism, and Dualism defined — Position of Materialism stated and discussed — Incomparability of physical and psychical phenomena — Positions of Büchner, Vogt, et al., criticised — Outcome of Materialism unintelligible — Metaphysics of Materialism examined — Position of monistic Spiritualism stated — And its Tenets criticised — "Animism" examined and rejected — Materialism and Spiritualism mutually destructive	283
--	-----

CHAPTER X

MONISM AND DUALISM

Method of current Monism — The Agnosticism of Monism — The assumption of Absolute Mind justified — Views of Professor Höffding criticised — The principle of "Parallelism" examined — And its Terms found either inadequate or unmeaning — "Proportionality" an inappropriate Term — Facts incompatible with the complete Extension of this Principle — The "Identity-hypothesis" ends in the unintelligible — The Case against psychological Monism summed up — Position of speculative Dualism — Objections to this position examined	314
---	-----

CHAPTER XI

ORIGIN AND PERMANENCE OF MIND

Nature of the following Discussions — Problem of the Origin of Mind stated — Application of terms of Locality to Mind — Traducian Theory examined — "Transmission" of Mind an absurdity — Creation Theory examined —
--

	PAGE
Problem of the Permanence of Mind stated — Concept of Permanence as applied to Mind — The “Tripartite” division of Man — The permanent Unity of the Subject of all conscious states — Principles of all abiding Reality of Mind — Possibility of really existent but Unconscious Mind — Phenomena of so-called “unconscious Cerebration” — Only possible unconscious Existence of Mind — Being and Becoming of Mind — Relation of finite mind to Absolute Mind	356

CHAPTER XII

PLACE OF MAN’S MIND IN NATURE

Kant’s criticism of the Doctrine of Immortality — Nature of Arguments for Immortality of Mind — Existence of unconscious “Mind-Stuff” of no value — Views from the psycho-physical standpoint — Necessity for introducing other Considerations — True Nature of Mind-Life — Relations of man’s Mind to physical Nature — And, finally, to the Being of the World, considered as Absolute Mind	396
---	-----

INDEX	413
-----------------	-----

PHILOSOPHY OF THE MIND

CHAPTER I

PSYCHOLOGY AND THE PHILOSOPHY OF MIND

IT is now somewhat more than a hundred years since the philosopher Kant expressed himself in despair over the possibility of psychology ever securing title to a place among the exact sciences. One reason which influenced this great thinker to such a state of mind was the inherent lack of power — as he thought — on the part of psychology to put off the traditional incertitude of metaphysics, and to put on the robe of mathematics. It is certainly a significant fact to find at the end of the century an almost complete change of view as to the nature of this study. For perhaps the majority of those students whose opinion is best worth consideration now hold, not only that the science of mental phenomena should dispense with metaphysics, but that in its modern form it has actually shown that it can do so; while an essential characteristic of the “new” psychology is undoubtedly the large and methodical use which it makes of experimentation and statistics. This experimental and statistical study of mental phenomena implies, of course, the exercise of that arm by which alone all the exact sciences triumph, — namely, measurement and mathematics. It would seem, then, that this for a time dethroned but now reinstated queen has succeeded in changing her vesture, in a manner which Kant considered her very nature to render forever impossible.

A more careful examination both of the current practice and of the history of opinion, however, shows that the real state of the case is by no means so clear or so satisfactory. For the obvious truth is that not a few of those writers who cry out most loudly and unsparingly against the admixture of metaphysics with scientific psychology are themselves often the greatest transgressors in this very regard. Indeed, their practice suggests the not unkindly sarcasm that the metaphysical hypotheses and tenets which they think it indispensable to exclude from the "science" of mental phenomena are solely those of their opponents. And so it comes about that in some treatises by such writers on psychology the soil is first of all cleared, with more or less declamation, of all those noxious weeds of philosophy which might otherwise mix in and spoil the purity of the empirical science; then, next, the seed of this pure science is diligently sown before our delighted eyes, as it comes fresh from numerous physiological and psycho-physical laboratories, or from the brains, fertile in conjecture, of the author himself. Yet somehow, when the total crop is ready for the harvest, not a few sprouts of metaphysics are still found to have crept into it. Strange to tell, however, they are chiefly of species which flourish best on just that soil, whenever room has been made for them by the clearance of pre-existing species.

It can scarcely be claimed, then, that the practice of the advocates of a scientific psychology which shall keep itself clear of all metaphysical implications has as yet taught us precisely how to secure so desirable a result.

And if we turn from example to theory (for who does not incline to teach others better than he himself practises in matters of this kind?), the case does not even then seem much better. For, in general, it is those very psychologists who have been most confident of the possibility of freeing scientific psychology from all investiture of metaphysics who have given us least intelligent and calm discussion of

the real and permanent relations between the two. Their practice, therefore, too often seems dependent on a lack of consistent theory.

There are several forms of such inconsistency which are connected with different forms of concealed or repressed philosophical opinion. As against the metaphysics of old-fashioned "rational psychology," so-called, some writers advocate empirical "psychology without metaphysics," or "psychology without a soul." But in half-conscious recognition of the truth that to walk consistently along this line of abnegation would bring them to the realm where there exists nothing but ghosts and dreams of ghosts, they soon show a disposition — to use Professor James's expressive words — to "pull the pall over the psychic half" of the phenomena. They require for the effective working of their psychological theories at least so much metaphysics as consists in the assumption of an entity called the brain, on whose activity or influence they can lay the responsibility for mental phenomena. They also take their views of causation seriously and in a truly ontological way, so long as they are dealing with states of consciousness in systematic dependence upon preceding states of a physical or chemical sort. But when they are faced about by the acknowledged sequences of other phenomena, and are compelled to consider whether states of consciousness can, as is ordinarily supposed, be real causes of subsequent physical and chemical changes, then their entire theory of causation is deftly adapted to the claims of the shallowest phenomenism.

Other writers, indeed, set out with the pronounced and honest attempt to hold fast to the purely scientific point of view, *in whichever of the two possible directions* we consider the allied yet disparate series of mental and physical phenomena. If, for example, the question be as to what nerve-commotions or local impairments in particular areas of the cerebrum are regularly followed by changes in the phenomena

of consciousness; or as to what kinds, amounts, and time-rates of various stimuli, when applied to the periphery of the nervous system, are succeeded by definite known changes in the quality, intensity, and time-rate of mental states, — then these investigators propose faithfully to state the facts, and to let the generalizations from them stand as mere orderly sequences between the two classes of phenomena. But if the question be as to what movements of the muscles, innervations of organs of sense, determinations of qualities and changes of perceived things, disturbances of cerebral functions; or of the circulatory, respiratory, and digestive systems, with all the capillary and secretory activities connected therewith; or as to what more subtle organic changes and modifications of every form of tissue (such as birth-marks, stigmata, and epileptiform hyperæsthesia or hallucinations, reactions of the “psychic cells” so-called) follow certain forms of consciousness called emotions, passions, desires, deeds of will, and “suggested” or “fixed” ideas, — why then, too, these writers accept the obligation to be equally ready to acknowledge mere sequences in fact between different classes of phenomena. It is the business of science, say they, simply to discover actual orderly correlations between phenomena. And if this be true of all science, as such, why should it not be true of the particular science of psychology?

It will be our purpose later on to consider in detail the various assumptions involved in the last of the positions just mentioned. It is far from our present purpose to find fault with such a position. It has its own justification; although this justification will be seen to be only temporary and partial. Nor are its advocates to be blamed because they habitually use language and assume subordinate premises that are thoroughly suffused with metaphysics; for all this belongs to the very necessities of the case. No one can even talk about mental phenomena and about their dependence upon brain-states or upon changing stimulations under psy-

cho-physical laws without assuming the real existence of both minds and things, and the reality of interaction between them. What is meant by such a complex network of assumptions, — *that* is something which one may pursue psychological science without knowing and even without considering at all. It is precisely this question of meaning which a scientific, as distinguished from a naïve and natural metaphysics, aims to investigate.

Grave fault is to be found, however, with a considerable number of this latter class of writers on the science of psychology for the unthinking way in which they adopt the so-called purely scientific point of view, — yet graver fault, as has already been indicated, for their failure to abide by it consistently. For they, too, as a rule, fail to keep the adopted point of view of a dualistic phenomenalism. And, after all metaphysics has been thrust out of the front door of the temple of science, they are found somewhat clandestinely admitting some one favorite form of metaphysics by the rear door.

The sacred precincts have indeed been industriously rid of that metaphysics of Dualism which all unsophisticated science adopts. But the high-priest of the establishment is finally discovered on his knees, — if not in the main scientific *aula*, at least in some ante-chamber or side apartment, — before the altar of Monism. Now, for an avowed metaphysician there is nothing shameful about this; but it is scarcely the right thing to be done by one who has lifted up his voice before the very threshold of the temple in warning against all metaphysics. Such conduct certainly leads the bystanders to the suspicion of ulterior motives of a concealed philosophical kind. What these motives usually are will be made more clear later on; and how far they seem to us sufficient to justify such an attitude of worship will also be explained. We are now simply arguing in the interests of intelligence and candor; and we believe that these two quali-

ties ought to characterize the study of the science of psychology as of all the other sciences.

It would seem, without special research, as though a certain form of metaphysics were the natural and necessary accompaniment of every scientific approach to the study of mental phenomena. This form is of course an uncritical, common-sense Dualism. Psychology assumes that "things" are and "minds" are; and that, within certain limits determined by the so-called "nature" of both, they act causally upon each other. Those happenings which are ascribed to things, and those which are ascribed to minds, are never regarded by "science without metaphysics" as *mere* phenomena; or, rather, the very word "phenomena" necessarily suggests and implies beings *of* which and *to* which the phenomena are. That is to say, what science calls "the phenomena" are, after all, in fact, regarded as the observed modes of the behavior of real beings, both of minds and of things. And so long as the student of mental science maintains this attitude, he remains on the ground occupied by the students of all the natural sciences. The study of psychology as a natural science is not really, then, the pursuit of a knowledge of correlations between phenomena wholly *without any metaphysics whatever*; it is rather the pursuit of this science with only *such metaphysics* as is naively assumed in all scientific inquiry. Psychology may then, for the time being, — if one is only willing to leave it so, — be called "a natural science;" but only as it is founded upon a natural, uncritical, and unreflecting metaphysics. How far psychology can successfully be pursued in this way we shall also consider later on.

It is instructive, although somewhat disheartening, for the ardent advocate of a purely scientific psychology to contrast the practice and theories of his colleagues with those of the students of the principal physical sciences. All remember now Newton — who himself dabbled somewhat too freely in

rather poor metaphysics — issued to physics a warning against all metaphysics; and no doubt his successors in physical investigation at the present day suppose themselves, in the main, to be carefully observing the warning of this great master. At any rate, they are sensitive enough to what they consider the immeasurable superiority of their own sciences when contrasted with even the modern endeavors, in this regard, of the most advanced psychological science. Occasionally, however, while speaking with ill-concealed contempt of the “old psychology” as mostly composed of worthless metaphysics, they hold out the hand with a charming show of cordiality toward the “new psychology;” and this because the latter offers to them the promise of exhibiting, in scientific form, what it can accomplish by use of scientific methods, “without metaphysics.”

If it were our present purpose to discuss problems in the philosophy of nature or the metaphysics of physics, rather than in the philosophy of mind or the metaphysics of psychology, we should profit by giving a detailed critical examination to these claims of superiority on the part of the physical sciences. It is enough now to affirm that the modern physical sciences are very far indeed from being capable of exhibiting themselves systematically as stripped of all metaphysics. On the contrary, the most stupendous metaphysical assumptions and implications are woven into their structure throughout. Instead of being *mere* formulas for stating uniform sequences among phenomena, they are descriptions and explanations of experiences which appeal at every step to invisible and mysterious entities, to hidden and abstruse forces, to transactions that are assumed to take place among beings whose existence and modes of behavior can never become, in any sense of the words, immediate data of sensuous knowledge. A high place of honor, although doubtless one to be obtained only after enduring the pangs of a prolonged crucifixion, awaits that philosophi-

cal biologist, or that philosopher sufficiently acquainted with scientific biology, who subjects the modern doctrine of evolution to a thoroughly critical analysis, with a view to detect and to estimate its metaphysical assumptions. When such a one appears, if his criticism turn out mainly destructive, it will be interesting to know how much will remain of the so-called "science" of evolution; but if the criticism be favorable and conservative in result, it is safe to say that this result will be attributable to the fact of the "scientists" having builded better as metaphysicians than they knew as mere "scientists."

It is vain to endeavor to break the force of the present contention by reminding ourselves that the students of natural science regard all so-called entities, real causes, and transactions, which never have themselves become or can become phenomena, in the light simply of permissible and helpful hypotheses. Let this be at once conceded; and let it also be conceded that this way of introducing hypotheses, in the effort to find a more complete explanation of actual experience (of the "phenomena," if one is pleased by insisting on this word), is scientifically legitimate. It will scarcely be seriously maintained, however, that by *hypothetical* entities, causes, and transactions, the men of science mean *mere* hypotheses, — that is, assumptions as pure and simple states of the hypothesizing mind, as nothing more than the consciousness of ideating and reasoning in a certain way, and of feeling better satisfied if only able to hit upon a certain way of ideating and reasoning. For example, one may call the "luminiferous ether" a hypothetical entity. But by this one only means that it is an entity about the existence of which, and the transactions in which, we have no immediate and certain knowledge. One cannot see it, hear it, taste or smell or touch it. But if one is permitted to assume such an entity, and such and such transactions in this entity, then one can the better account for existences and transactions of

which one has indubitable knowledge. The *assumed* entity is assumed as an *entity*; and such an assumption cannot be made "without metaphysics."

Or to take another example: What physicist thinks of the so-called "atoms" as mere ideas in his own mind, introduced into his dream about a real, an "extra-mental" world, in the interests simply of an ideal consistency? The rather does science incline to maintain that the things seen, heard, smelled, tasted, and touched are themselves — at least relatively.— phenomenal; and that the beings between and in which the relatively real transactions occur are just these transcendent and permanent, these all-potent but yet hypothetical entities. It is, says this natural science, these non-phenomenal and never-to-be-phenomenal entities which do the real work of the real world.

It is in this frank and courageous but totally uncritical metaphysics, rather than in its success in dispensing with all metaphysics, that the present superiority of the physical sciences to psychological science largely consists; for it is such metaphysics, and it alone, which is the appropriate outfit of the student of nature who wishes to confine himself to scientific investigation, without avowedly making excursions into the fields of philosophy. Its fundamental and unquestioned epistemological assumption is briefly this: Knowledge is to be had by working in the right way for it; and by "knowledge" is understood the mental representation of things and events as they really are. And if the question is raised, What, then is the "*right way*" to work for knowledge? the sufficient practical answer consists in pointing out the way in which others have already attained knowledge.

But the correlated ontological assumption — the other side, as it were, of the epistemological assumption — is that things really are, that transactions actually take place, and that causes actually operate (and by "really" or "actually"

is here undoubtedly meant "extra-mentally") as they are known to be, to take place, and to operate. Nor, unless he is influenced by some suspicion of danger to other philosophical tenets held in reserve and chiefly connected with ethical and religious tenets, does the student of the physical sciences hesitate to apply both the epistemological and the ontological postulates to his own mind and to the minds of other men. As a man of science simply, he has doubt neither of his own real existence, — the same self somehow that he was yesterday and even years ago, — nor of his ability to know himself as he really is. Moreover, he does not think himself obliged, in the interests of any scholastic metaphysical theory, to hesitate about adopting the ordinary common-sense metaphysics. Surely it would be scant courtesy in him to deny that the colleagues with whom he discusses the nature of luminiferous ether, and the equivalences and performances of the atoms, are themselves really existent minds, standing in actual relations of friendly intercourse to himself.

It is, indeed, true that some authorities in the physical sciences, particularly if they are engaged in composing unusually voluminous and profound treatises, think it necessary to have a few words of reckoning with so-called metaphysics in a more formal way. In this case, their custom is to announce a position of thoroughgoing agnosticism respecting the fundamental assumptions and conceptions with which they will soon be found dealing in these same treatises. For example, their readers are told at once, with a becoming and impressive scientific modesty, that natural science does not know, or even aim to know, what "matter" really is, or what matter is *per se*, etc. Next comes the confession that "energy," too, is a word in the use of which science desires to get rid of all metaphysical implications; here also science acknowledges neither the obligation nor the ability to tell what that is real is meant by the term it so constantly employs.

But before one is even able to inquire whether there can be science where there is no knowledge; and whether all knowledge that is really *knowledge* is not knowledge of that which really is and really occurs; and whether knowledge of anything *per se* is not a *contradictio in adjectivo*; and whether such sweeping agnosticism does not necessarily lead to the opinion that the systems of modern physical science are themselves no better than merely half consistent dreamings; and what this entire big book and all the other big books produced by similar authorities are about, if nothing is known as to the real nature of matter and as to the reality set forth by the scientific hypothesis of "the conservation and correlation of energy," — our author has probably paid his tribute to metaphysics, and is proceeding quietly on his way with the legitimate work of his particular science. This simply means that he has dropped back into the position of a common-sense and uncritical Dualism in respect of his metaphysical assumptions and metaphysical conceptions. And such, as has already been repeatedly said, is the legitimate philosophical position of the worker in science only.

If, however, our authority in natural science at any point in his own investigations comes into close contact with some question which primarily belongs to the empirical science of psychology, but which is in his mind connected with theological and religious problems, or with philosophical views in the realm of ethics and conduct, then it is not unlikely that his more obvious attitude toward so-called metaphysics will undergo a sudden and marked change. Of possibilities of this sort the writings of Mr. Huxley — to select one example from many — afford many interesting and instructive illustrations. When discoursing exclusively about the bones of extinct animals, and telling us how they demonstrate the theory of evolution and put it on a par for certainty of knowledge with the law of gravitation, or about the structure and functions of living animals considered as pure

mechanism to be explained in accordance with the hypothesis of the conservation and correlation of physical energy, this celebrated authority in natural science is obviously a common-sense realist of the dualistic type. He discourses concerning what he himself has done, and what he himself knows, with naïve metaphysical assumption that transactions in the real world of things, actually stretching over vast extensions of space and time, are being correctly set forth. But let some question arise as to the freedom of the human animal, or as to the relation of brain and mind, or as to the so-called "reality" of the latter, and how quickly does Mr. Huxley show a disposition to change his philosophical point of view, with all its implied tenets! Indeed, so rapid sometimes is his metaphysical metamorphosis that several quite distinct standpoints may be taken in the course of a few pages. For first, perhaps, we shall find him announcing himself an agnostic of the type of the Kantian who has only followed his master through the first edition of the "Critique of Pure Reason," and who lays emphasis on the destructive criticism and its negative outcome, while rejecting the subsequent attempts of the "Critique of Practical Reason" to find room for a metaphysics of morals and religion. Then, anon, he is a materialist, — really so, however he may be inclined to accept or reject the name; for he is found virtually assuming the reality of the brain and the whole nervous system, and of the other entities belonging to the natural science of man, while maintaining that all mental phenomena must be regarded solely as phenomena of the brain, mere "epi-phenomena." Or, yet again, a still more astounding change in the fundamental metaphysics of this facile reasoner takes place; and now he appears in a garb simulating the idealist of the advanced Berkeleyan type. All that we can immediately and certainly know is now declared to be our own ideas or states of consciousness, — a proposition from which a return to the position that no knowledge of

reality at all is possible offers no insuperable difficulty. So varied are the metaphysical performances of the man of science when, for some reason or other, he gives up the uncritical dualistic metaphysics which is so becoming to him, and enters self-consciously upon the mazy territory of scholastic theories!

But why — we may now ask with increased eagerness, and perhaps with somewhat improved intelligence — shall not psychology be cultivated as a purely natural science, on the basis of the same naïve Dualism as that which we have seen rightly to characterize the metaphysical assumptions of the students of the other natural sciences? If this can be done, why shall not psychology also boast of being at last what Kant seemed to think it never could become, — namely, a science without metaphysics? And why do not the writers who are most anxious to establish their claim that psychology is a purely natural science themselves frankly adopt and cling to this dualistic position?

The reasons for the somewhat vacillating and largely unsatisfactory practice of psychology, in its recent attempts to build itself up as a science without metaphysics, are partly historical. There can be no doubt that an exceedingly promising and already fruitful movement in new lines of psychological research characterizes the modern era. Some of the leaders of this movement have indeed been quite too ready to forget the large accumulations for a truly inductive and scientific psychology, which, even under the excessive domination of special metaphysical views, were made by men of the preceding era. This seems less strange and basely ungrateful, however, if attention is called to the recent rise and rapid advances of what is somewhat too boastfully called the "new psychology." It was only in 1835 that E. H. Weber published his articles in Wagner's "Handwörterbuch;" and Fechner's first great work, "Elemente der Psychophysik," did not appear until 1860.

Now, it is of course almost wholly in connection with the investigation and discussion of the psycho-physical law connected with these names that the modern science of exact measurement of mental phenomena has been developed. Only for so short a time, then, has the science of psychology been endeavoring in earnest to put on the robe of mathematics; although hundreds of skilful and diligent workmen, with patient endurance through hundreds of thousands of experiments, have been contributing piecemeal, as it were, to the construction of this robe.

In detailed scientific study of the nature, origin, and development of sense-perception, the immortal monographs of Helmholtz — “*Lehre von den Tonempfindungen*” and “*Handbuch der Physiologischen Optik*” — deserve as pioneers the place of honor; but these appeared in their first complete form no earlier than 1862 and 1867 respectively. On the physiological side the almost worthless and highly misleading phrenology of Gall and Spurzheim had to provoke a long and determined reaction; and it was not until the experiments of Fritsch and Hitzig in 1870 that the bare foundations of the modern science of localization of cerebral function were first laid. With the exception of certain exceedingly fundamental matters, about which the first and simplest conclusions are still involved in no little doubt, the experimental investigation of the so-called “higher” mental phenomena cannot be said even to have begun to assume the form of attempt at exact measurement. General nerve-physiology, which may in time become a helpful handmaid to the understanding of all classes of psychoses, and especially the particular nerve-physiology of the cerebral centres, cannot as yet truthfully be claimed to be a science; while as for hypnotism, psychiatry, criminology, and much of the tribute which anthropology, race-psychology, and the comparative psychology of the lower animals assume to pay to a truly scientific treatment

of human mental life, — why, the less said about this in the form of *scientific* claims the better.

The consciousness of the average student of psychology is then (not wholly unwarrantably) apt to become somewhat confused as to the relations which all these forms of the phenomena sustain to each other, as to the discussion of the wider problems of philosophy, and as to his own rights and duties while taking the part of an avowed investigator of this branch of natural science. Nor is the confusion lessened when the more fundamental preliminary discussions of the right psychological methods, and of the safe and satisfactory use of those methods deemed right in themselves, are thrown upon him. Moreover, the shadow of portentous ethical and perhaps also religious problems, that seem somehow likely to get mixed up with his attempts at an empirical science, overawes or stimulates or angers him.

What one thinks is true, or ought to be true, with respect to the origin and explanation of the so-called consciousness of freedom, or the consciousness of self, or the consciousness of "the ought," does not particularly concern one's investigation of the pistils and racemes of a plant, of the scales and fins of a fish, or of the chemical and physical constitution of a rock, etc. But if it is a case of laboratory work in investigation of the phenomena of voluntary attention or of conscious choice, it is difficult to exclude the influence of philosophical prejudices. Moreover, the pursuit of the science of psychology without metaphysics (inasmuch as this "without metaphysics" so often practically becomes equivalent to the rejection of all metaphysics except the pursuer's own) is undoubtedly often embarrassed by the lack of thorough training on the psychologist's part. Not a few of the young men who have been set to investigate "special problems" in our newly founded psychological laboratories have no adequate acquaintance either with philosophy or with human psychology as pursued from its

various points of view; while the psychological and philosophical insight and attainments of most physiologists and physicians, into whose hands chiefly is committed the first treatment of abnormal and pathological mental phenomena, are scarcely worth mentioning in this connection.

But there is yet another potent reason for the marked shamefacedness and lack of confidence, candor, and thoroughness which belong to the attitude of much modern psychology toward metaphysical assumptions and metaphysical speculations. The reason is partly to be found in the influence which psychology has received from certain leading forms of natural science. In some respects this influence has undoubtedly been stimulating and salutary. It has assisted to correct the former too prevalent method of attempting to deduce the mental phenomena, their connections and accepted explanations, from preconceived notions as to the nature, activities, and relations of the soul. It has also spurred on investigation into the attempt at increased accuracy in the observation of psychic facts; it has enlarged diligence in the collection of a more adequate basis for induction, and has secured more reserve and care in generalization. Of course, also, without the knowledge which physics, chemistry, and physiology have recently acquired upon a great variety of facts, laws, and improved forms of instrumentation and experiment, any satisfactory equipment for experimental psychology as pursued by laboratory methods would be quite impossible. The laudable desire at last to rival the other older and better established empirical sciences has undoubtedly contributed many good results already; it promises yet a larger number in the future of scientific psychology.

On the other hand, the influence of the physical and natural sciences upon modern psychology has been by no means wholly beneficial. This, however, has not been the fault chiefly of the students of these sciences; it has been

the fault chiefly — as far as one may speak of fault at all — of the students of psychology. And here we may note in them a certain half surrender, or too timid and deferential use, of their own peculiar psychological standpoint. This standpoint is and always must remain the same. It is that of discriminating consciousness turned upon the phenomena of consciousness. No attempt at so-called “objective” observation of mental phenomena can ever in the least diminish the necessity which belongs to the very nature of psychological science to regard these phenomena always from the point of view of introspection also. Only in representative self-consciousness can we ever know what the phenomena of consciousness really are. The piling up of experimental results, the enlarging of collections of statistics, the anthropological and other “objective” data, all assist the science of psychology only in so far as they help the psychologist more extensively, accurately, and profoundly to analyze this representative self-consciousness. For the world in which his science moves is ever mirrored in his own soul; and if he first goes outside to collect and arrange signs of the conscious processes of other minds, he must always come back to his own consciousness to interpret the meaning of these signs.

When, then, any student of psychology, through fear of being considered too subjective or too metaphysical, neglects to cultivate or depreciates and denounces the analytic of a trained introspective observer, he is in a fair way soon to be found offering for sale his own peculiar birthright; and the chances are very largely in favor of his exchanging this birthright for some mess of half-cooked pottage.

Moreover, the overpowering sense of the reign of law, as this reign is maintained in the physical realm; the feeling of awe before the sacred principle of the conservation and correlation of energy, as though it were a near approach to blasphemy to suggest that this principle may be utterly

inadequate (not to say totally irrelevant) to set forth relations of psychic phenomena; and in general the determination not to claim *scientific* attainments for psychology until she is clothed from head to foot in the garb of mathematics, — all these things have exercised an unduly depressing influence on modern psychology. It is to be hoped that psychologists may some day dwell at peace with physicists and physiologists, not simply by a dumb submission to their formulas as sufficient for the scientific treatment of mental phenomena, but on terms of a genuine equality. Indeed, it is possible that some day the former may show the latter not a few things which they need to know for the more successful pursuit of their own sciences.

The foregoing criticism has been — excepting the mention of Mr. Huxley's name — quite general and impersonal. It will now be briefly enforced and illustrated by several selected examples. It is very far from our intention, however, in selecting for detailed examination the opinions and practice of Professor Höffding, Professor James, and M. Flournoy, as respects the relations of scientific psychology and metaphysics, to hold any one of these writers up to obloquy. On the contrary, the reasons which might induce a critic undertaking our present task to name these three gentlemen are, for the most part, distinctly honorable to them.

Of Professor Höffding,¹ it may be said that in defining psychology as "the science of mind," or, again, "of that which thinks, feels, and wills, in contrast with physics as the science of that which moves in space and occupies space," he at first takes intelligently and frankly the standpoint of uncritical dualistic metaphysics. The definition plainly assumes, not merely the existence of "mental phenomena," but of "mind" as the subject of these phenomena. Mind is spoken of as "that which thinks, feels,

¹ Outlines of Psychology, p. 1.

and wills;" and mind is set in "contrast with" that which "occupies space, and with which scientific physics deals." Such an uncritical Dualism has already been declared to be the attitude pre-eminently fit for the student of mental phenomena without any metaphysics beyond that which all the sciences employ. Moreover, the true psychological method is thus from the start openly espoused; for we are told¹ that "if we wish to gain a knowledge of conscious life, we must study it, above all, where it is directly accessible to us, — namely, in our own consciousness." Later on, it is mentioned as "the merit of the English school to have shown that psychology is independent of metaphysical speculation." It is as "distinct in aim from the study of external nature and from metaphysical speculation"² that the author proposes to exhibit psychological inquiry.

In the next following chapter, upon "Mind and Body," however, Höffding proceeds to justify his standpoint as "purely empirical or phenomenal, not metaphysical or ontological;" and to separate it, as scientific, from "the popular mode of apprehension," which is — he truly says — "a compound of experience and metaphysics." This procedure, of course, results in a complete departure from the point of view of the first chapter; for its point of view was, as we have already seen, no other than this same popular (and yet empirically scientific) standpoint which naturally leads to an admixture of "experience and metaphysics." And now, instead of reminding us of the contrast between "that which" is the subject of psychoses and "that which" moves in space and occupies space, the whole discussion sets out with the assumption that the validity in reality of this contrast is itself to be tested by certain conjectural physiological laws, and especially by the principle of the conservation and correlation of (physical) energy. Because the discussion cannot sustain the strain of the undoubted facts of the contrast,

¹ Outlines of Psychology, p. 11.

² Ibid., p. 16.

what breaks down is not the attempt to justify the laws where they plainly do not belong, but the very contrast itself. And now it is announced¹ that "in the mental as in the material world, we hold fast," not to the contrast, which was formerly declared to define the very nature of the science of psychology and the very essence of the psychological standpoint, but "to the law of continuity"! And so the "identity hypothesis" is affirmed to be triumphant at the very beginning of a psychological inquiry which originally professed to maintain a standpoint "purely empirical or phenomenal, not metaphysical or ontological."

What, now, is this "so-called identity hypothesis," thus naïvely substituted for his formerly avowed Dualism by a writer on purely "scientific" psychology? Why, it regards "these worlds [the mental and the material] as two manifestations of one and the same being, both given in experience." We shall in due time show that the most avowedly high-and-dry ontological dogmatism contains few declarations more obscurely, not to say unintelligibly, metaphysical than this. Even at this point it is evident that nothing but the fear of misunderstanding² deters Höffding from acknowledging his view as the "new Spinozism." And was not Spinoza, then, a metaphysician, and above all an "ontological" philosopher? However this may be, we have certainly been led by a very short road to a position in marked contrast with any purely empirical standpoint.

After this taint of original transgression, due to commerce between psychology as a science and monistic metaphysics, has been admitted into the very life-blood of Professor Höffding's psychological inquiry, one must not be surprised to find it repeatedly breaking to the surface throughout the structural development of the inquiry itself. Among the several marked instances of such a corrupting effect of metaphysics upon the purity of his "empirical science,"

¹ Outlines of Psychology, p. 66.

² Ibid., p. 68.

a single selection will quite suffice. In his interesting and able discussion of the "Psychology of the Will,"¹ Höffding starts with a fair amount of fidelity to psychological science as dealing primarily with the phenomena of consciousness. But when he comes to the clinch with that profound problem which certain facts usually included by psychological classification under the term "Will" offer to detailed reflective study, we find him abandoning not only the strictly psychological standpoint, but also the very field of metaphysical assumptions which most naturally surrounds this standpoint. For in an unqualified way, just after admitting² that "so long as we keep to the purely empirical ground of what, before and during the action, takes place in and before consciousness, it is not possible to demonstrate the validity of the causal law in the sphere of the will or of the mental life in general," Höffding³ indulges in the following metaphysical dicta: "Psychology, like every other science, must be deterministic; that is to say, it must start from the assumption that the causal law holds good even in the life of the will, just as this law is assumed to be valid for the remaining conscious life and for material nature."

How thorough Höffding conceives the likeness or identity to be (as implied by the words "just as") in the reign of causal law within both the psychological and the physical realms, we may gather only too certainly from utterances which immediately follow. For example, we are told:⁴ "It does not matter whether the breach of causality is great or small [that is, in the phenomena of so-called "Will"] ; the question is one of principle. A weight suspended by a string falls to the ground whether the string is cut in one place or in many." And again,⁵ "Indeterminism conflicts, not only with psychology, but also with physiology [*sic*],

¹ Outlines of Psychology, vii. pp. 308 ff.

³ Ibid., pp. 345 f.

⁴ Ibid., p. 346.

² Ibid., pp. 344 f.

⁵ Ibid., p. 347.

inasmuch as it enters into irreconcilable contradiction with the principle of persistence of energy in the organic [*sic*] province. If a volition without a cause is admitted, then the functions of the brain and of the nervous system must be allowed to originate without a cause." Neither from the point of view of psychology as the science of psychical phenomena, nor from that of any possible forms of metaphysical doctrine as to the nature of physical or psychical being, as to the nature and reality of the so-called "causal law," or as to the real connections of body and mind, do we now question these rash statements of Professor Höffding. We simply ask, What has now become of psychology as a "purely empirical or phenomenal, not metaphysical or ontological," science? What has become of the naïve and relatively justifiable metaphysics which considers it as a science of "that which thinks, feels, and wills, . . . in contrast . . . with that with which scientific physics deals?"

Later on, when the attempt is made to deal thoroughly with the metaphysics of the "identity-hypothesis," we shall ask this authority to show satisfactory reason why the one reality to which the "contrasted" phenomena (psychical and physical) are referred, might not possibly choose to follow the principle of the conservation and correlation of energy in one of its contrasted aspects, and decline to follow it in the other. Just now we are merely forced to the conclusion that Professor Höffding's attempt at a purely scientific psychology really begins with a mischievous confusion of science and metaphysics, and ends with a yet more mischievous confusion worse confounded. Nor can the result be excused as an honest but necessarily unsuccessful attempt to treat the science of mental phenomena without metaphysics, or, at most, only with such metaphysics as is legitimate in all scientific inquiry. The failure plainly must be ascribed to a covert effort to introduce into psychology scholastic and doubtful metaphysical assumptions while claiming to conduct a purely scientific inquiry.

So varied and shifting are the metaphysical standpoints of Professor James in his voluminous treatise on psychology as to induce the boldest critic to hesitate before affirming that he has detected and comprehended them all; nor do we think that the most friendly critic would readily venture to show how they can all be held together in a perfect harmony. At the very beginning, this writer is more than usually lively in his warning against introducing metaphysics into psychology when treated as "a natural science." In the Preface we are told:¹ "Metaphysics, fragmentary, irresponsible, and half-awake, and unconscious that she is metaphysical, spoils two good things when she injects herself into a natural science." With all this we perfectly agree; especially with the suggestion that it is "fragmentary, irresponsible, and half-awake" metaphysics whose corrupting influence over every form of natural science, and especially over psychology, is chiefly to be feared. On the other hand, we also believe that thorough, responsible, and wide-awake metaphysics is a "good" thing; of such metaphysics, when it is "consciously" and intelligently, and not clandestinely or dishonestly, combined with science, we see little reason to fear any corrupting influence over any form of natural science.

That Professor James does not propose to treat his subject as a science wholly without any metaphysics whatever, he has already informed us at the top of this same page; for he has affirmed that psychology as a natural science assumes for its data (*sic*), (1) *thoughts and feelings*, and (2) *a physical world* in time and space, with which they coexist, and which (3) *they know*. Now, it might easily be claimed that for psychology as a perfectly pure empirical science (description and explanation) of the phenomena of consciousness (or states of consciousness) as such,² only the

¹ The Principles of Psychology, i. p. vi.

² So Professor James defines it to be in his smaller work, "Psychology," p. 1.

first of these data — namely, “thoughts and feelings,” as including, of course, those states of consciousness which we call “knowledge” — are necessarily to be assumed. The assumption of a “physical world in time and space,” with which these thoughts and feelings co-exist, is indeed a justifiable assumption for psychology, as it is for every other form of natural science. It is, however, a metaphysical assumption; but it is just that metaphysical assumption which, in Professor James’s large and loose way of stating it, constitutes one entire half of a crude, uncritical Dualism. Moreover, from the purely psychological point of view there is probably no other subject the treatment of which by this author is more unsatisfactory than those very “states of consciousness,” or — better said — modes of the activity of mind which are called “knowledge.” The assumptions “I know,” “You know,” etc., and the assumption in general that scientific knowledge is attainable and actual, are indeed legitimate for psychology, as for every other form of natural science. At the same time, it is a chief obligation and a supremely difficult task for psychology as an empirical science to trace the genesis and development of knowledge. Professor James has nowhere in his spacious volumes fully recognized this obligation, much less performed this task. It may be suspected that the reason for this is to be found — at least in part — in the complete inability of all “cerebral psychology” to throw even a glimmer of light upon the psychological, not to say the epistemological, problems involved in such states of consciousness.

After having once recognized and approved the opinion of Professor James with reference to his fundamental metaphysical assumptions at the top of this remarkable page, we are the more astonished to read what he says at the bottom of the same page. For in the sentence which follows the warning against such metaphysics as “spoils” the natural science of

psychology, we have the theory of "a spiritual agent" brought forward as a leading example. It is "just such metaphysics as this," we are told, which corrupts the "psychology books." But why this excessive tenderness in the Preface toward the metaphysical postulate of a mind as (to quote again the phrase of Höffding) "that which thinks, feels, and wills"? — unless, indeed, to be a "that-which," etc., is fundamentally different from being an "agent;" and to think, feel, and will is something necessarily other than to be "spiritual." Or the contrary, if the assumption of a physical world is the legitimate and necessary metaphysical standpoint of physics the assumption of a mental being (or "spiritual agent") is the equally legitimate and necessary metaphysical standpoint of psychology. But we have already repeatedly declared that both assumptions constitute the equipment in natural metaphysics with which every student of natural science — whether of physics or of psychology — necessarily starts his scientific inquiry.

This vacillation between the philosophical standpoint which denies all metaphysics the right to mix with psychology, and that which affirms the rights of the metaphysics of physics but denies all rights to the metaphysics of mental science characterizes the entire treatise of Professor James. The total result is rendered even more confusing by large admixture of philosophical sympathy with those students of mental life who openly affirm and intelligently defend the assumption of a "spiritual agent," whose are the psychical phenomena but who is not to be identified either with the sum-total of these phenomena regarded content-wise, or with the subject of the physiological and cerebral phenomena. In many places Professor James seems to hold that this is not only the legitimate preliminary assumption, but the very last word of science and philosophy upon the matter.

To prove our somewhat sweeping accusation of inconsistency would scarcely be necessary for those who have studied "The

Principles of Psychology" most carefully. We must content ourselves with citing only one or two of the many possible illustrations. A chapter¹ on "The Relations of Minds to Other Things" in a psychological treatise is from its very nature a metaphysical discussion. In this discussion² Professor James affirms that whereas when I perceive Orion I am only *cognitively*, and not *dynamically*, present there, because "I work no effects," — "to my brain I am dynamically present, inasmuch as my thoughts and feelings seem to react upon the processes thereof." Of course, nothing could be more agreeable to the most advanced advocate of the "theory of a spiritual agent" than such a sentence as this; for it affirms that the spiritual agent not only exists, but "works effects," and that, too, upon the cerebral processes. By such a claim the modern hypothesis of the conservation and correlation of energy, and all the current weak attempts so to use it in an ontological way as to contradict the plainest dicta of our ordinary experience, are given a private *coup de grâce*. Especially is materialism inflicted with a deadly wound in the place where it is accustomed to represent itself as invulnerable. Still further on³ we are told that the psychologist's attitude toward cognition is a thorough-going Dualism. "It supposes two elements (rather beings), — mind knowing, and thing known, — and treats them as irreducible. Neither gets out of itself or into the other, neither in any way *is* the other, neither *makes* the other."

Further, however, as to the relations of mind and brain, Professor James refuses⁴ to add anything to what has been said in the preceding two chapters. What, however, is our surprise, on refreshing our memories as to what *has* been said in these chapters, to find that the comparison shows not so much mere addition or subtraction as a totally different metaphysical point of view. For in one of these preceding

¹ The Principles of Psychology, vol. i. chap. viii.

² Ibid., p. 214.

³ Ibid., p. 218.

⁴ Ibid., p. 216.

chapters¹ the so-called "Mind-Stuff Theory" is discussed; and in the course of the discussion the author takes occasion to speak of the "Connection between Mind and Brain" (pp. 176 f.). There we are assured that the view which regards the total state of consciousness as "corresponding" to the entire activity of the brain will be adopted and not departed from during the remainder of the book. The reason given for adopting this view is its supposed superior value as a purely scientific and non-metaphysical hypothesis.

In a subsequent brief mention of the "Soul-Theory," although admitting that this form of metaphysics has its marked advantage, inasmuch as it gives us a being or "medium,"² in which the manifold brain-processes may "combine their effects," Professor James reiterates his determination to hold fast by the theory of "blank, unmediated processes," as the last word of a psychology that will content itself with scientific verities, and avoid unsafe metaphysical hypothesis. By keeping to this empirical parallelism, it is declared, our psychology remains positivistic and non-metaphysical. Certainly, however, it is a somewhat far cry from this position to that in which one makes bold to speak of one's self as "working effects" upon one's brain, or as "dynamically reacting" upon the cerebral processes. Nor does this alleged "empirical parallelism," in so far as it is actually adhered to and made use of, turn out at all non-metaphysical. In almost every case, on the contrary, where this theory is put to the test, it turns out to be only another way of introducing the same metaphysical standpoint to which we have already called attention as adopted by the Preface; that is to say, the existence of the brain and of its processes is assumed as a part, as *the* primarily important part, of that "physical world in time and space" with which the thoughts and feelings coexist. *It* is the only reality, to which all sorts of most highly conjectural performances are freely ascribed in

¹ The Principles of Psychology, vol. i. chap. vi.

² See pp. 181 f.

the interests of scientific explanation. But as to any assumed reality for the "spiritual agent," for the soul or the mind, for the subject of the thoughts and feelings,—why, such metaphysics is carefully avoided. Whether we like the word or not, this is undoubtedly the position of materialism.

Hence arises Professor James's ideal of a scientific treatment of mental phenomena as possible only in the form of a cerebral psychology; hence his frank declaration¹ that nothing resembling a "science" of psychology at present exists. Hence, finally, his intimate philosophical alliance, whenever he is pressed for his ultimate thoughts, with the metaphysical standpoint of Mr. Hodgson in treating of psychological problems. Indeed, we are told out and out, and in italicized print, at the close of the following chapter,² that it is the relations of the subjective data, of the thoughts and feelings, to things and to the brain (but not to one another or to the mind?), that "constitute the subject-matter of psychologic science."

The points of view and of approach to this subject held by M. Flournoy in his interesting monograph³ differ widely from those of Professors Höffding and James, as already discussed. This writer, although he gives to his work the title "Metaphysics and Psychology," undertakes to banish all metaphysics, good or bad (if we may for the time being continue to agree with Professor James in holding that there is such a thing possible as "good" metaphysics), forever from the arena of psychological inquiry. He will have none of it, whether it be considered as introduced in the form of assumptions either to be disproved or verified by the progress of scientific inquiry, or in the form of speculations arising in the course of the inquiry, or professed in the interests of fuller explanation of acknowledged psychic facts. The general principle on whose

¹ See the close of his small book.

² *Ibid.*, p. 197.

³ *Métaphysique et Psychologie*, par Th. Flournoy, Docteur en médecine, etc., Genève. 1890.

proud shoulders is to be laid the task of this exorcising mandate is called the "Principle of Concomitance, or of Psychophysical Parallelism." This principle is declared to be at the very base of modern psychology.

It is not quite clear, to begin with, what M. Flournoy means by speaking of his principle as "serving as the base" of psychology, — whether, for example, we are to understand that it is one of those necessary but non-metaphysical presuppositions which all empirical science may make; or whether it is a principle inductively derived, but admitted to be true by all students of psychology whose opinion it is worth while to take into our account. Personally, we should be sorry to believe that the latter is the author's meaning; for he himself has done us the honor to quote us, and this in conjunction with a no less distinguished authority than Professor Wundt, as among the few remaining "*savants*" who deny the absolutely universal extent in application of this so-called "principle of parallelism."¹ Denying this principle is defined by M. Flournoy as the equivalent of holding that the phenomena of psychic life show plain tokens of an "activity properly spiritual," having the "function of elaborating the data of sense, comparing them," etc.; and that such activity or function is "independent of the organic processes."

Now, to the precise phrasing of the clause just quoted it may safely be presumed that both the writers in question would interpose well-founded objections. Neither of them would be willing to be committed to the view, and — so far as can readily be shown — neither of them has ever expressed the view that psychic activities or functions are, in the stricter sense of the word, ever totally "*independent*" of the organic, that is, the cerebral, processes. Further than this we will not attempt to answer for Professor Wundt; and for the answer, in its fuller form, which we should wish to make for ourselves, reference must be had to some of the later

¹ *Métaphysique et Psychologie*, p. 6.

chapters of the present treatise. It will now suffice to say that obviously it is not modern experimental psychology alone, with its elaborate system of measurement and psycho-physics, but all psychology of all times, and even the commonest knowledge of the unlearned man about his own mental life, which correlates states of consciousness, content-wise, with the character of the stimulus that produces them. One does not need to be a psychologist of the type trained in the modern laboratory to know that when one's fingers are in the crack of a door, the more, within "limits," the pressure of the door is increased, the greater grows the pain; or that ten candles make things brighter than one candle; or that the weight which *is* heavier, when thrown into the scales, ordinarily *feels* heavier to the muscles, skin, and joints of the man who lifts it. Indeed, the common impression really is, in many respects, more likely to overdo than to underdo the estimate of the strictness of this correlation. It is difficult for men generally to be convinced, for example, that there is so much difference as actually exists between the subjective time-rate of the sensation, or the exact temporal position at which it strikes into the stream of consciousness, and the objective time-rate or temporal position of the occasioning stimuli. So, too, everybody knows that the kind of sensations one has "depends upon" — or, to avoid metaphysics of even the weakest savor, we will say, is "correlated with" — the kind of external excitements which act upon the end-organs of sense. Here, again, it is those far obscurer influences which *do not* belong to the obvious external correlations, and which even modern psychology can only speak of with any clear intelligibility by employing *psychological* terms (such as imagination, feeling, desire, intention, etc.) that are overlooked in the popular estimate.

It is a long and weary journey, however, from this point of view to the conclusion that all man's psychic life, especially when regarded on the side, not of passive content, but of

those activities and functions which develop into the so-called "higher faculties," is in like manner strictly correlated with, not to say determined by, the physical series. Such a conclusion is certainly not in accordance with the popular view, nor do we believe it to be the view warranted by the most minute study of psycho-physical data after the modern methods. At any rate, it can be said to "serve as a base" for modern psychology only as it is put there by investigators who have already grievously departed from the strictly scientific position, and have incontinently taken up with the metaphysics of our modern psycho-physical Spinozism.

But we have already said that the distinction of M. Flournoy consists chiefly in his deriving from this acknowledged principle of "concomitance," or complete "psycho-physical parallelism," a crushing refutation, as he thinks, of all metaphysics whatever. For he goes on to declare¹ that this psycho-physical principle, "like Janus, presents two opposed faces, of which one, looking toward the future, smiles at science, while the other, turned toward the past, shows its teeth at metaphysics." Now, it does not appear to be simply "bad" metaphysics which needs to beware of the growl and bite of this new-born psycho-physical Janus; it is all metaphysics, — metaphysics as such. As to what M. Flournoy understands by "metaphysics," the reader can scarcely claim to learn from his definition. This runs, as all the world but the metaphysicians themselves are agreed: "Metaphysics is that of which those who listen understand nothing, and which he who speaks does not himself understand." It would scarcely consist with courtesy to the audience (these words were originally spoken), or to the speaker himself, to take this facetious definition of metaphysics too seriously; for the larger part of the remainder of this treatise is taken up with a critical discussion of the "principal metaphysical hypotheses concerning the union of the soul and the body." And this discussion is sufficiently clear for any intelligent reader to comprehend.

Now, it will at once be said, in defence of M. Flournoy, that we must constantly bear in mind his intention already announced, — namely, to show how this fundamental and invulnerable psycho-physical principle is inconsistent with the tenure of any and every form of metaphysics. But here two important things are to be noticed; and both of them bring back the practical and theoretical difficulties which stand in the way of every attempt wholly to separate scientific psychology from the influence of philosophical speculation. First, the criticism of any rejected metaphysical hypotheses has itself no force as criticism, and no meaning as language, without admitting the influence of other accepted metaphysical standpoints as the critic's own part. Indeed, in general we suppose it to be strictly true that *no particular tenet or system of tenets in metaphysics can be gainsaid or even discussed without adoption of some other metaphysical tenet or system of tenets*. It follows that no consistent champion of science, pure and simple, and wholly "*without metaphysics*," can ever even draw his sword to slay the metaphysical ogre unless he first come within the realm, and put on the armor, of metaphysics. Otherwise, his sword and he himself are but phantoms; and his work of hewing down the metaphysical hypotheses not only is, but must in consistency be regarded by himself as being, like that which goes on in Valhalla. In other words, and to change the figure of speech, there is no critical cure for bad and insufficient metaphysics but good and consistent metaphysics.

But, second, M. Flournoy's very proposal of the psycho-physical principle as destructive of metaphysics is itself incapable of the statement and application which he gives to it, unless it be taken in a metaphysical way. It is itself the very scientific principle on which both metaphysical materialists and metaphysical spiritualists base their conclusions. Perhaps it would be more correct to call it the metaphysical principle upon which both materialism and spiritualism base themselves,

by emphasizing — each one — only one-half of this principle. It is, properly speaking, not at all an inductive principle which itself serves as the base for the modern empirical science of psychology. Only by the entire course of this treatise can the full force of our criticism of M. Flournoy's position be made obvious. But both the foregoing points of criticism will now be illustrated; and we shall consider them in the order above mentioned, as putting the easier task first.

How inevitably every author assumes the metaphysical standpoint, and takes for granted the validity of *some* (his own, of course) metaphysics, whenever he criticises the metaphysics of other people, is well illustrated by M. Flournoy in his remarks on "Phenomenism."¹ This is the term chosen for that form of metaphysical hypothesis which carries idealism to the length of solipsism. Its conclusion is, "My state of consciousness, that is all the reality." Or, in other words, its hypothesis reduces matter to "a pure representation of our consciousness, an idea." Perhaps a more thorough preliminary investigation of the inquiry, What is metaphysics? would have suggested to the author the following conclusion: Without — totally without — any metaphysics whatever, that *is* precisely what all reality, whether so-called matter or so-called mind, becomes. But, conversely, as somehow given, or implicated, in the state of consciousness, regarded as *my* state, and not by any possibility regarded *merely* as *state*, all reality, whether of matter or of mind, exists.

The question we are now interested, however, in discussing is M. Flournoy's method of escape from what he is pleased to call the metaphysical hypothesis of phenomenism, or solipsism, without resort on his own part to metaphysics. The final wrench of this modern advocate of psychological science as not the sponsor or the heir, but the executioner of all ontological hypotheses, from the clutches of the metaphysical ogre, is accomplished in the following somewhat Johnsonian style.

¹ *Métaphysique et Psychologie*, pp. 37 f.

It is not material things, however, whose reality can be demonstrated by kicking them, or by striking them with our canes, after the fashion of ordinary common-sense realism, which M. Flournoy is chiefly anxious to save. He admits¹ that the real existence of the very bread he eats might be spared if the mental phenomena vulgarly called "seeing, touching, and eating bread could be constantly followed by the mental phenomenon which I call *no longer being hungry and being reinvigorated*." Surely idealism need feel no alarm at this point; for there never was a solipsistic ogre of so voracious metaphysical maw as to wish to deprive us of this kind of bread.

But there are other interests (touching real entities and of a metaphysical sort) which this critic of phenomenism cannot so lightly surrender. For he goes on to say, with a feeling in which all metaphysicians, whether idealists or dualists, would fully share: "To admit, however, that my wife, my children, all humanity, past, present, and future, are only diverse groups of my sensations and ideas,—that no sentiment of love or hate exists outside of those which I directly experience,—that there are no other *Egos* than my own,—that I alone, with my actual memories or hopes, comprise all Reality,— . . . brrr! the bare idea of this solitude gives me a chill in the spine; and I am not astonished that all the phenomenist philosophers are in fact unfaithful to their system."

The sentences just quoted undoubtedly land their author on the other side of the barriers erected by the advocates of idealism when pressed to the limits of solipsism. But who does not see that M. Flournoy has employed, in order to surmount these barriers, the soaring wings of the metaphysics of sentiment? We have no objection to mingling sentiment freely with philosophy, if only it be done in such a way as to suffuse with warmth and color the body of a sound reflective thinking;

¹ *Métaphysique et Psychologie*, p. 42.

or, conversely, if reflective thinking be employed to expound the meaning of those universal and unalterable sentiments which belong to the spiritual substance of humanity. But if M. Flournoy supposes that one can logically and consistently undo the conclusions of what he calls the "metaphysics of phenomenism" without help from some other form of metaphysical hypothesis, why then he has himself shown the impossibility of carrying out his own supposition. To posit somehow — call the act of positing by the term "knowledge," "inference," "faith," "hypothesis," or what you will — the reality of a world of minds, past, present, and future, all standing in actual relations toward each other, *this is to be metaphysical*, in the most portentous fashion. Furthermore, unless such an act of positing is to be made a *mere* act of wilful and unintelligent positing, its reasons must be examined and defended against criticism; its nature and import must be reflectively discussed. But such discussion is metaphysics, in the technical sense of the words; it furnishes the very body of a well-reasoned and critical Idealism.

It would not be difficult to show that in his criticism and rejection of the other contesting "metaphysical hypotheses," — of Spiritualism, Materialism, and Monism, — M. Flournoy is equally, though perhaps not quite so glaringly, inconsistent. The refutation of them all necessarily leads the refuter to assume other metaphysical standpoints than those which he is refuting. But we now pass to the other and less obvious statement which was made above; we propose to show how the very "principle of concomitance or psycho-physical parallelism," as here accepted and defended, is all suffused with metaphysics. As might be expected from the general habit of writers who maintain too thoughtlessly the necessity of a psychological science wholly without metaphysics, M. Flournoy's various statements and explanations of this principle carry him from one metaphysical standpoint to another in a quite bewildering way.

The meaning of the fundamental psycho-physical principle which is to give the *coup de grâce* to all metaphysics is stated by M. Flournoy in the following compact and intelligible way:¹ "*Every psychical phenomenon has a determinate physical concomitant.*" The fuller statement of meaning runs as follows: "That is to say, the totality of interior events, thoughts, sentiments, volitions, etc., which constitutes what we call the life of our soul, our psychic or mental life, is accompanied by a parallel series of modifications in our bodily organism, and particularly in our nervous system; and this in such a way that each term of the psychic series depends upon a definite term of the physiological series; to each state of consciousness corresponds a special molecular state of our brain, a determinate group of physico-chemical phenomena effectuated in the cells or fibres of our cerebral substance." Now, just so long as this statement is understood in a totally non-metaphysical way, it simply affirms the regular sequence of one class of phenomena upon another class of phenomena. Phenomena called "thoughts, sentiments, volitions, etc.," depend upon phenomena called physico-chemical, or molecular states of the brain; and of these two, it is impossible to deny that we know the one (the "thoughts, etc.") directly and indubitably as phenomena, while the other (the so-called physico-chemical phenomena) are only known in an extremely uncertain, fragmentary, and conjectural fashion. But what is most important to notice is, that so long as the strictly psychological and non-metaphysical standpoint is held, the latter class of phenomena can be known only as they fall under the former class, — that is, as "thoughts" *about* (or, rather, for the most part, somewhat wild and irregular guesses and half-conceived faiths *about*, etc.). And now one might catch at this last word, and ask "about" what? Oh, "about" the brain and its cells and fibres, and about physico-chemical and

¹ *Métaphysique et Psychologie*, p. 5.

other molecular changes. But, again, we insist that unless M. Flournoy intends to adopt the metaphysical standpoint of common-sense Dualism, he must class himself for the present with the advocates of that very phenomenism which he refutes by flying aloft on the wings of metaphysical sentiment.

However, plain signs are not lacking of another metaphysical standpoint which M. Flournoy, perhaps unconsciously but no less virtually, assumes; for he goes on to say¹ that if we should reverse this proposition, and affirm, "Every physical phenomenon has a determinate psychic concomitant," we "should depart from the limits of positive science, and enter upon metaphysics without reserve." Now, for the right to make this very reversal, and indeed for the imperative duty of making it, in the interests both of logic and of science, we shall elsewhere strenuously contend. But what we now wish to know is, how this refusal is consistent with a purely non-metaphysical tenure of the celebrated principle of psycho-physical parallelism? Surely, here one may say, it is a lamentably "poor rule that won't work both ways," and it might be added, work with equal ontological efficiency in both directions. The appropriate exhortation irresistibly suggests itself. Either stick to your phenomenism, or else be consistent in your metaphysics. But precisely *what kind of metaphysics* is to be shown special favor becomes very clear when we are told:² "It may be said in brief that the principle of parallelism, on which experimental psychology is founded, assumes beneath every phenomenon of consciousness a correlative physiological phenomenon; because psychology, in order to become a positive science, ought to become as much as possible *physiological*." Indeed, its grand ideal, according to M. Flournoy, is to become "nothing but a branch of mechanics."

Now, it may be that psychology will ultimately have to

¹ *Métaphysique et Psychologie*, p. 13.

² *Ibid.*, p. 15.

sell its "soul" for so cheap a price as mechanics is likely to be able to pay; although there be psychologists who do not propose to close the bargain just at present: if they must sell at all, they are content to wait for a large rise in the value of the commodities offered in exchange. "Just at present," however, it can scarcely be claimed by any one who has sufficient acquaintance with facts to be an acknowledged authority, that cerebral physiology constitutes a large enough scientific cosmos to induce a wise man to take the whole of it in exchange for even a hypothetical soul. But how such an exchange will ever be effected totally without metaphysics is what we find it particularly difficult to comprehend. And have we not just now seen M. Flournoy himself expressing his willingness to surrender the ontological verity of his own daily bread, if only he can save that of his "wife, children, and all humanity, past, present, and future"? That is to say, when defending certain souls, in whom he has a practical interest, against the destructive metaphysics of phenomenism, he is a pronounced metaphysician of the common-sense (albeit, rather emotional), realistic type. But now, in the interests of a so-called "psychophysical principle of parallelism" that works "effectually only in one direction," — namely, in that of reducing the science of psychology to a branch of mechanics, — he is ready to assume only the ontological verity of brains, his own and, we must suppose, those of "all humanity, past, present, and future." What would become of real brains without real bread to nourish them, or what would become of "all humanity" considered as devoid of psychical reality, or how men would win and distribute bread and grow brains unless physical phenomena *did* have a determinate psychic concomitant, are not made quite clear. But what is exceedingly clear is something more than the same tenderness which we found Professor James displaying toward the ontological interests of the physical half of the principle of

parallelism. Indeed, *the metaphysical standpoint involved in this one-sided working of the principle of parallelism is definitely that of metaphysical materialism.* Yet M. Flournoy elsewhere criticises and rejects the metaphysics of materialism; and, as we have seen, he adopts the standpoint of a metaphysics of spiritual idealism, in the interests of his friends and of "all humanity."

Further illustration of a similar shifting of philosophical points of view, in the very effort to establish a science of psychology wholly without metaphysics, is afforded us by the way in which M. Flournoy invariably speaks of physical science and of its principle of the conservation and correlation of energy. Here his standpoint is apparently that of a common-sense realist of the dualistic type. Bread exists, and brains exist, and a world of material objects exists, and "all humanity" exists; the latter may know the former, may effectuate changes in it, in spite of the fact that the psycho-physical principle, as a scientific principle, is to be taken ontologically in only one direction.

The views of these three authors have been discussed at such length, and with so much of somewhat sharply polemical criticism, because they are quite representative of the success which Monism, Materialism, and Positivism are accustomed to attain in the effort to treat psychology as a purely "natural science," without any admixture of metaphysics whatever.

One can scarcely suppress a pardonable feeling of relief and satisfaction on turning to writers who, like Volkmann and Wundt, for example, openly maintain the right to introduce speculative and metaphysical tenets into scientific psychology; and who openly adopt some philosophical standpoint, and remain standing in it and ready to defend it, in a consistent and intelligible way. So far as it seems necessary to refer to definite views on the relations of psychology and the philosophy of mind, as held by writers who set so

commendable an example, this will be done in the following chapters.

The result of our investigation thus far has been to show how inconsistent is much of the practice of the advocates of psychology as a "natural science," without metaphysics; what are the advantages of the physical sciences, as at present pursued, when compared with psychology in respect of their method of making metaphysical assumptions; and, at least in a preliminary way, what kind of metaphysics is consistent with that uncritical but wholly justifiable approach to its problems which psychological science as such affects. A more careful examination must now be given to those relations of psychology and the philosophy of mind which grow out of the very nature of both.

CHAPTER II

PSYCHOLOGY AND THE PHILOSOPHY OF MIND (*continued*)

THE difficulties of a consistent and not needlessly offensive practice in treating psychological problems as related to metaphysics are scarcely so great as would seem to follow from the examples criticised in the earlier chapter. There are two ways of adjusting these difficulties, either one of which ought to be fairly satisfactory to any candid student of the subject. In the first place, one may approach the examination of mental phenomena with the modest and unobtrusive metaphysics of the man of science who does not aim to be at the same time a philosopher. In this way, one takes for granted, at least to begin with, the existence both of things and of minds, the reality of causal relations between the two, and the possibility of knowing both what they and their relations really are.

Let it be noted at once, however, that these assumptions justify the explanation of mental phenomena by the discovery of those changes in things with which they are connected, and as well by the hypothesis (undoubtedly a metaphysical one) that they are phenomena of a being which exists and develops in actual relations to the world of things, and which may be called "the mind." Such is, indeed, the matter-of-fact metaphysical standpoint assumed by every worker in psychology who investigates some definite problem (let us say, of reaction-time, or association of ideas, or changes of affective consciousness, in the laboratory; or of

the hypnotic, the insane, the criminal, in so-called real life; or on the basis of the dramatic representation of soul-life in novels, plays, etc.). To this same standpoint every investigator unconsciously adheres, so long as he does not try consciously and critically to be metaphysical. And no one finds any fault with him for doing this. Indeed, the writer of an entire treatise on mental phenomena, even including those phenomena which we call our conceptions of "Self" of "Things," of "Time," of "Space," of "Causation," etc., may definitely adopt the same metaphysical standpoint. And so far as he adheres to it, he may be justified in claiming that he does not need the help of special metaphysics at all, that he is only taking the standpoint appropriate to the investigations of problems in psychology considered purely as a natural science. Where his chief difficulties will begin to show themselves, and how he may best face or avoid them, will be considered later on.

But, again, it is equally legitimate that the writer on scientific psychology, especially if he propose to deal somewhat thoroughly with the entire round of psychological problems, should adopt some definitive metaphysical point of view, with its allied assumptions or reasoned conclusions; and that he should then make such use of it as can be shown to be helpful or necessary in the explanation of mental phenomena. Such a course would undoubtedly invite unfriendly and perhaps contemptuous criticism from ardent but immature advocates of psychology without metaphysics. But why may not speculative hypotheses of an ontological character (and, in truth, all speculative hypotheses have an ontological character) be applied to the tentative explanation of mental phenomena? The same method is not thought inconsistent with fidelity to the demands of science in all other departments of investigation. Why, then, should discriminations be made — of all subjects — against psychology? In answer, it will be shown in due time that

certain metaphysical hypotheses of a special kind are absolutely indispensable for both the description and the explanation of certain classes of mental phenomena. Indeed, ontological assumptions and ontological conceptions belong to the essential nature of the phenomena themselves.

To illustrate the position just taken, by the most nearly analogous case of the physical sciences: Is the physicist to be frightened away from the assumption that some substantial being (called "Matter"), always having quantitative measureableness or "Mass," and being the seat or vehicle of a variety of modes of "Energy," all conserved and correlated, exists as the subject of the phenomena he observes, by an outcry against metaphysics? Does he not the rather introduce, freely enough, other entities, such as luminiferous ether, and perhaps electricity, etc., in the interests of his explanatory science of physical phenomena? Does not chemistry in its modern form posit, as explanatory postulates, the existence of some seventy different kinds of entities (called "atoms"), each packed full of capacities and potencies (the so-called "natures" of the atoms)? And is it deterred from doing this by any outcry against such a monstrous amount of metaphysics in the very heart, as it were, of physical science? Nor is it particularly difficult to say what relations must be maintained between all such speculative and metaphysical elements of the body of explanatory science and that body itself. First, as all would admit, the observed facts, the phenomena, must be ascertained as they really exist, in their relations of concomitance and sequence. Speculation must not be allowed to dictate to them what they shall be, or how they shall occur and recur; on the contrary, speculation is introduced in the interests of explaining them. Then there are the well-known rules restricting and guiding the introduction into our scientific knowledge, so-called, of all theory and hypothesis, — such as the rule of parcimony (*entia*

non multiplicanda), etc. But the call may at any time be issued, "back to the facts," — that is, back to a new envisagement of actual experience, and to a more thorough analysis of this experience; and then forth, again, if you will, to enlarged and modified speculative and explanatory hypotheses.

Now, no valid reason can be assigned why a considerable amount of even special metaphysics should not be employed in the explanations of psychological science. Indeed, this science will be seen, above all others, to invite and almost to necessitate such a method of study. Such a method is that actually employed with distinguished success by the two writers to whom commendatory reference was made at the close of the last chapter, in their admirable and voluminous treatises on the science of psychology. One of them, Volkmann, makes prominent the metaphysical hypothesis of the Soul as the really existent subject (or *Träger*) of the mental states, and as reacting upon all kinds of excitement (upon being "brought into relation" with other being) in the form of mental representation (*Vorstellen*). The other, Professor Wundt, although keeping his speculative tenets more in the background at first, adopts the conception of the Soul as an actual psychic energizing, as a dynamic and synthetic reality, which forms the ultimate explanation of all the phenomena of conscious experience. The metaphysical outcome, as well as metaphysical assumption, of Volkmann is really a certain form of Dualism; although the author himself prefers for it another name. That of Wundt is a certain form of Monism, to which the title of "Ideal-realism" is assigned.

It would be unfair, not to say ungenerous, for the advocates of psychology without metaphysics to deny the very high scientific merit of the voluminous treatises written by the two authorities just mentioned; the fact is that their *chefs-d'œuvre* stand in the very front rank of psychological

science. Indeed, Volkmann's *Lehrbuch der Psychologie*¹ and Wundt's *Grundzüge der Physiologischen Psychologie*² are the two masterpieces among modern German attempts to deal scientifically with the whole round of mental phenomena. Nor does it appear, in our judgment, that the quality of the empirical science of these psychologists has been "spoiled," or even greatly injured, by their frank and intelligent, but on the whole well restrained, use of metaphysical and speculative hypotheses. This judgment is maintained in spite of the dislike shown in certain quarters to even that modified form of the Herbartian realism which Volkmann employs; as well as to the various conceptions of psychic synthesis, apperceptive function, etc., which Wundt adopts, in subordination to his general metaphysical standpoint.

The practice of all writers who aim at any great thoroughness in the treatment of psychological problems — especially, of course, those which present themselves in the effort to explain the so-called "higher" forms of mental functioning — differs largely, in respect of the metaphysics involved, as a matter of degrees. For this and other reasons it will serve our general purpose well to examine very briefly the opinions of Volkmann and of Wundt on the use of philosophical standpoints and philosophical tenets in the cultivation of scientific psychology. We leave to the reader the task of comparing their actual practice with that of the writers considered in the last chapter.

According to Volkmann, the primary and obvious problem of psychology is the explanation of psychical phenomena. But "*explanation*" is further declared to mean "the reduction of the phenomena of our inner world, which are given merely in time, to those actual events which lie at

¹ *Lehrbuch der Psychologie vom Standpunkte des Realismus und nach genetischen Methode*, von Ph. Dr. Wilhelm Volkmann, Ritter von Volkmarm (3d ed., Cöthen, 1884. A fourth edition just issued).

² *Grundzüge der Physiologischen Psychologie*, von Wilhelm Wundt, Professor an der Universität zu Leipzig (4th ed., Leipzig, 1893).

their foundations (*das ihnen zu Grunde liegende wirklich Geschehene*), and the establishment of the laws according to which the former follow from the latter.”¹ So, then, the question whether the determination of the nature and existence of the soul belongs, as an integral and legitimate part, to the problem of psychology depends upon whether, or not the explanation of any of the phenomena is conditioned in any way upon our insight into the existence and nature of the subject of all the phenomena. And while this question may be, for the time being, left unanswered, we must at least admit that its investigation occupies in psychology a position parallel to that occupied by the metaphysics of matter in physical science.

Now, it is not easy to see how a psychologist who takes the position of the “scientist,” for instance, can consistently object to this position of Volkmann; for, as we have seen, the former assumes, in the interests of the explanation of psychic phenomena, the existence of a brain and of a real world of objects with manifold actual occurrences therein (so far as they are *in* the brain, though mostly of a highly or purely conjectural sort). Only, as we have also seen, the “scientist” often abandons early the peculiar standpoint of psychological science, as Volkmann does not; and thus draws near, in a perilously friendly way, if he does not actually go wholly over to the metaphysics of monistic materialism. For Volkmann, on the contrary, the fundamental principles of psychology are laid in “actual psychic events.”² And so close is the connection which the metaphysical hypothesis of a real soul, as the subject of all the psychic phenomena, sustains to the possible interests of scientific explanation, that the old division between rational and empirical psychology must be abandoned. Much of what has been held to belong to rational psychology must then be assigned to metaphysics rather than to psy-

¹ Lehrbuch der Psychologie, vol. i. pp. 2 f.

² Ibid., pp. 3 f.

chology at all; and what should be retained as part of the science of psychology consists only of so much as can be successfully employed in the explanation of actual phenomena.

The true method of psychology, Volkmann goes on to declare, is the "genetic;" and *this method traces and explains the development of mental life by a combination of empirical and speculative or metaphysical principles*. For who would think of claiming that the general laws of this life can be established by induction upon a basis of actual facts, without making any use of such concepts as causality, substance, change, force, self-consciousness, time, etc.? Indeed, it is just such concepts as these which have reality in the interests of explanatory science, rather than those wholly barren and abstract concepts of "powers" and "faculties" with which the old-fashioned psychology so freely dealt.

Volkmann thus arrives at the following definition of psychology.¹ It is "that science which sets before itself the problem of explaining the general classes of psychical phenomena, by means of the forms of mental representation as empirically given, and by means of the speculative conception of mental representation according to the laws of the life of such representation." It is, of course, the effort of this consummate disciple of the Herbartian psychology and Herbartian metaphysics to explain all mental phenomena as due to one mode of the soul's reaction (*Vorstellen*). The "soul" is, indeed, assumed as the subject of the states; but it is this peculiar mode of the soul's reaction which both gives unity to Volkmann's treatment of psychological science, and also furnishes the occasion for perpetual objections on the part of those who dissent from his theoretical point of view. Psychology, he holds, can never be deprived of its necessarily philosophical character; on the other hand, its metaphysics

¹ *Lehrbuch der Psychologie*, vol. i. p. 34.

is not to be constructed *a priori*, but in the interests of making "thinkable" what is given to us *a posteriori*. Yet the standpoints of psychology and metaphysics are different;¹ metaphysics answers the same problems with the assumption of a speculative process which psychology answers with the demonstration of a historical process. But how can they be kept wholly apart? They cannot; for all the problems of metaphysics, and even all the conceptions of metaphysics, are psychical products; indeed, the totality of metaphysical thinking is nothing but a psychological process. Even the conception of metaphysics itself is possible only under the assumption of psychological science. Yet this relation of the dependence of metaphysics on psychology does not by any means deprive the former of all power to render assistance to the latter; for our knowledge of the correctness, of the objective validity, and of the æsthetical or ethical as well as epistemological value of metaphysical conceptions is by no means wholly dependent upon our ability to demonstrate the historical process of their origin and development. Moreover, it could be added — although Volkmann does not insist upon this, as he might — that the psychologist who studies and demonstrates such a psychological process cannot strip himself of the metaphysical assumptions and conceptions which are essential parts of his own developed mental being.

Volkmann then proceeds to point out — and this may always be done to the confusion and contempt of all attempts to institute a cerebral psychology wholly without any metaphysics — that the physiological hypothesis is itself inseparably connected with metaphysical conceptions.² It is not necessary to our purpose further to follow his discussion of views concerning the being and nature of the soul. Materialism is neatly and consistently criticised from the critic's own philosophical point of view; so also "Spiritual-

¹ Compare pp. 49 f.

² Compare pp. 81 f.

ism," meaning by this the explanation of the body *solely* from the standpoint of the assumed reality of the soul. The same task is then performed for that form of Dualism which denies the possibility of any mutually determining influences, or causal relations, between the body and the soul; while at the close of the section on Monism the author's own philosophical standpoint on these fundamental questions of speculative psychology is definitively announced. It is that of the "psychology of Realism." This assumes the existence of spirit as real and unitary being; analyzes the body into a system of unitary beings; and then shows how the development of the spirit as soul takes place through its changing relations with the body, while it establishes the unity of the soul's law of activity upon the basis of the difference in the nature of the two beings.

The amount of discussion which Professor Wundt allows to disputed metaphysical questions is relatively less than that allowed by Volkmann; while his use of the adopted philosophical standpoint and theory of the soul's nature is not so obvious. This marked difference between the two authors is partly due to the fact that the former professedly treats all psychical phenomena solely from the physiological and experimental points of view, and also to a difference in training, outfit, and interests. But Wundt, who is known as a leading authority in physiological and experimental psychology, has definitely committed himself to the opinion that it is impossible to effect a complete separation between psychology and philosophy. The relation between the two is,¹ he affirms, so close and peculiar that the attempt at a partition of sovereignty results in an abstract scheme which, in the presence of actuality, must always appear unsatisfactory.

Prominent among those conceptions which, according to Professor Wundt, pre-exist for every attempt at scientific

¹ System der Philosophie (Leipzig, 1889), pp. 5, 21 f.

psychology (*psychologische Vorbegriffe*) is that of the "soul." This conception, in some form, must be adopted by all scientific psychology. When we approach any of its problems, "soul means for us the subject to which we attribute, as predicates, all the particular facts of inner observation."¹ Undoubtedly, too, for the natural consciousness, as it expresses itself in language, "the soul is not merely a subject in the logical sense, but a *substance*, a real being, as whose manifestations or transactions the so-called activities of the soul are apprehended." To the adoption of this metaphysical presupposition a scientific psychology may possibly be led at the conclusion of its task; but on entering upon that task the author proposes simply to regard the soul as the logical subject of inner experience. This seems equivalent to the proposal to use the language of common-sense metaphysics until the science of psychology has been pursued far enough to enable us to establish, on an empirical basis, a critical interpretation and estimate of the real meaning and value of that language.

Repeatedly, however, does it become evident, during the course of the scientific discussions which fill his two large volumes, that Wundt is making use of the speculative hypothesis which we just attributed to him, in the interests of a fuller explanation of observed psychical phenomena. At the close of the treatise² there is a brief discussion of the leading metaphysical hypotheses regarding the nature of the soul. Materialism, Spiritualism, and Animism — the meaning given to the second of the three differing from that of Volkmann — are examined and dismissed as unsatisfactory. The author's own view is then introduced by a statement of the epistemological principle that "only inner experience possesses for us immediate reality." Idealism must therefore always gain an indisputable victory over every contest-

¹ Grundzüge d. Physiologischen Psychologie (4th ed.), vol. i. pp. 10 f.

² Ibid., vol. ii. pp. 626 ff.

ing view of the world, although it does not dispense with our obligation to recognize also the reality of the external world. From the psychological standpoint, the actual element of all spiritual functions seems to Wundt to be one and essentially the same activity, in which sensation and will appear at work in aboriginal union. This most primary psychical activity he designates as "*Impulse*" (*Trieb* rather than *Vorstellen*, as Volkmann holds). From it all the forms of mental development proceed, even including that apperceptive activity which finally appears as an independent process. Thus does scientific psychology lead to the reproduction in changed form of the Aristotelian definition of the Soul as the "prime Entelechy of the living body;" for the physical development must be understood, not as the *cause*, but as the effect of the psychical development.

The psycho-physical standpoint, however, must be taken as soon as one raises this question: What is the relation in which we are to conceive of the psychical as standing toward the assumed (metaphysically) substantial ground of the physical? The problem for all psycho-physical explanation of mental phenomena, therefore, becomes the problem of so expanding the physical conception of substance as to comprehend in it the manifestation of the psychical life of this complicated substantial complex. Now, from the purely physical point of view, since the elementary property of physical substance is motion, the moved substance is regarded as likewise the subject (*Trägerin*) of the elementary psychical phenomenon, — of impulse. But on its physical as on its psychical side, the living body is a unity; so that finally, therefore, our entire scientific investigation of the reciprocal relations between the physical and the psychical leads us to the assumption that "what we call the Soul is the inner being of the same unity that, externally considered, we regard as the body belonging to it." But Wundt's Monism is plainly of the idealistic order; for we

are at once informed: "This way of apprehending the problem of reciprocal relation leads, however, unavoidably beyond itself to the assumption that spiritual being is the actuality of things, and that its most essential property is development."

How far we find ourselves in agreement with either the standpoints, or the assumptions, or the conclusions of Volkmann or of Wundt, the subsequent treatment of all the problems involved will, we trust, make perfectly clear. The views of these authors have been introduced at this point in order to put their theory and practice in contrast — and, we believe, in contrast highly favorable to them, both as speculative thinkers and as students of empirical science — with the practice and theory of the writers cited in the first chapter.

And now, leaving for the present all polemical and critical discussion of the views of others, let us raise anew the question: In what relation does scientific psychology stand to the philosophy of mind (the science to the metaphysics of mental phenomena)? This question involves three subordinate questions, — namely, What is Psychology? What is Philosophy? and, What is that relation between the two which grows out of the very nature of both?

If psychology is approached as purely as possible from the empirical point of view, the effort is, of course, made to isolate, with reference to their scientific pursuit, a certain class of facts. Or, to use the more stately and impressive term, we endeavor to tell precisely what phenomena it is designed scientifically to establish and to investigate. In the case of beginning psychology, as in the case of beginning any other so-called science, we need not give immediate pause to consider that the very word "phenomena" is meaningless without the assumption of actual beings *of* which the phenomena are, and of other beings *to* which the phenomena appear. Nor, of course, can we think this phrase through

without recognizing the complicated metaphysical postulate of things standing in real relation to other things, and to minds that know them. But passing by so obvious an ontological skeleton, as it grins upon us the instant the secret chamber of empirical science is opened, and studiously keeping the most unblushing naïveté, we next inquire: What kind of phenomena, then, does this our science propose to consider? And here, in answer, one must use terms which only psychological science itself can define, — if, indeed, they admit of any definition whatever. Let the reply be, then, that it is the phenomena of consciousness, as such; it is psychic facts, as psychic, or — if you please — “psychoses” of all kinds, which psychological science proposes to examine. And if further inquiry be made as to what that “consciousness” is “of” which all the phenomena are, or “to” which, as to a general class, they belong, perhaps no better answer can be given than to say: What you are whenever you think or feel or will, when you are in wide-awake use of all your powers, or when you dream in most extreme submission to the caprices of fancy, — *that* it is to be conscious. Yet even thus, in our most cautious expression as to the essentials of phenomena of consciousness, of psychic facts, merely as such, we seem to have come perilously near the scarcely submerged rocks of metaphysical hypothesis. For to describe consciousness as “what *you are* when,” etc., seems likely, if too curious inquiry be made as to its import, to involve us in the consideration of some of the most abstruse of philosophical problems.

However — since the endeavor at knowledge must move on — this may be accepted as a preliminary definition: Psychology as a purely empirical pursuit, psychology as descriptive and explanatory, is “the science of the phenomena of consciousness, as such.” In this way it would seem that the descriptive branch of the science might at least be begun without either interference or assistance from metaphysics.

Possible assistance from metaphysics in the form of speculative hypotheses explanatory of the facts, one might fairly expect to encounter or even wish to invoke later on. But, alas! even the *description* of the phenomena of mind appears quite impossible, if such description is to correspond to actual psychic facts, without the danger and almost the necessity of introducing metaphysical convictions and hypotheses. For actually — that is, in the real life of ourselves and of other persons — the facts are not at all faithfully described by saying, "Sensations are, or perceptions are, or feelings are, or desires are," etc. The rather does faithful description compel us to say: "*I* (or you, or he) perceive; or *I* feel; or *I* desire; or *I* plan; or *I* think," etc. For such, when stated in the most meagre possible fashion, are the actual facts of ordinary experience. So that the portion, or phase, or "aspect," or "fringe," of the total psychic fact which is expressed or signified by the subject of the descriptive sentence (by the "*I*," or the "that-which" thinks), and by the place which it sustains as subject to the perception, feeling, desiring, planning, or thinking attributed to it, is as much distinctive of, and integral to, the fact itself as anything about it possibly can be. Indeed, with all this left out of the description, the character of the psychic *fact* is totally changed; it is, in truth, no longer a faithfully described *psychic* fact.

At about this point, then, the psychologist is compelled to take some sort of attitude toward those implications of all known phenomena of consciousness which are neither remote inferences from the facts nor metaphysical hypotheses introduced solely in the attempt to explain the facts, but are important belongings of the very facts themselves. At this same point, then, the psychologist *must* adopt one of those two metaphysical standpoints which, as has just been said, are the only justifiable positions for the investigator of this empirical science. He may say to himself, if not to his

readers: Yes, for the time being I will hold by such common-sense metaphysics as is plainly involved in all faithful and complete description of the psychic facts. I will assume, as men generally do, that there is some sort of a real being corresponding to this so-called "I," this Mind or Soul; and that what it is may be known by ascertaining how it behaves under the greatest possible variety of conditions, and in the greatest variety of relations. To render such knowledge scientific, — this is the very end of all psychological investigation. But the right is reserved, as the result of the process of investigation, to criticise — to adopt or to reject, to modify and to restrict or expand — this very same assumption with which the investigation begins. To make this assumption is but to show the same courtesy to the mind as that which the psychologists who appeared in the last chapter as advocates of a "natural science" of mind without metaphysics actually show to the brain and to other material things. How much more reasonable and scientific this form of courtesy is becomes at once apparent, when it is considered that the very facts which the psychologist undertakes to describe and explain are statable only in terms such as, "*I* perceive," "*I* think," "*I* feel," etc. And to say simply, Perceptions are, thoughts are, feelings are, etc.; or to say, Thoughts think, perceptions perceive, and feelings feel, etc.; or to affirm that "the present knowledge knows the other knowledges," — is not at all fairly to describe the facts. It is to do little better than to travesty them.

Yet, again, the psychologist may at this same point, with an equal propriety and an almost if not quite equal safety, bring forward his own more special metaphysical assumptions. He may state what is the real import, which he understands to be justifiable on a basis of fact, of those popular conceptions that are implicated in the faithful and complete description of all developed psychoses. To employ

speculative hypotheses in a manner to distort or dishonestly to hypothecate the facts would be no less unscientific and injurious in psychology than in any of the other empirical sciences. Here also, as in all scientific investigation, the statement of facts that can be verified as facts, and the use of hypotheses in explanation of the facts, must be kept distinct; and to each the suitable kind and amount of confidence must be assigned. Practically, however, the psychologist's ability and skill in doing this do not depend upon the particular school to which he belongs; upon whether he is a disciple of the old psychology and believes in metaphysics, or is "well up" in laboratory methods and has publicly announced himself as an adherent of the very newest psychology, wholly without metaphysics, and even without so much as the assumption of a soul. Those who are most familiar with all the modern researches know best how much the theories of the man behind the reacting-key incorporate themselves into the very structure of his experimental results. And he is totally unfit to handle psychological problems in a broad way who does not recognize how much that is true and wise about the nature of the human mind has been told by poets, play-writers, novelists, and metaphysicians, who never so much as dreamed of the existence of psychological laboratories.

Here the occasion may be seized to remark how pitifully meagre, compared with the rich, full, and mysterious content of actual human lives, is that list or series of so-called psychic facts which has been, or which can be, subjected to experimental analysis. Psycho-physics and physiological psychology have, indeed, many interesting and important problems fully before them, if not already firmly in hand. But supposing these problems to be much extended or even satisfactorily solved, — after all, the larger universal problems of psychology remain comparatively undiminished in magnitude and in mystery. These involve nothing less

than the description and explanation of the total nature and life of that being which is called the Human Mind. And what a tangle, — involving not simply sensations and revived images of sensations, determinable as respects quality, and measurable in quantity, in time-rate or duration in time, but also innumerable subtle faiths, fears, anticipations, instincts, and forms of tact or of talent so-called, superstitions, blind impulses, freaky changes or heaven-granted renewals and re-establishments of good-will, varied and indescribable, affectional, quasi-intellectual, and semi-voluntary elements, to say nothing of subconscious and perhaps unconscious mental activities of kinds difficult or impossible to describe, — what a tangle, indeed, is the actual life of this so-called Mind! Nor need it be an Aristotle, a Leibnitz, or a Goethe, of whom one is speaking. To describe and explain the actual mental life of Hans or of Bridget, of the child at one's feet, or the beggar at one's door, or the idiotic or insane in the neighboring asylum, is much too great a task for the most ambitious psychologist. But since the psychologist himself — yes, even the child and the idiot — is no less certainly metaphysical and philosophical in respect of the very structure and flow of his mental life than was Aristotle or Leibnitz, it is difficult to see how he is to act the part of a scientific psychologist without also taking on himself at some stage in the proceedings the rôle of a metaphysician.

Suppose, however, that the side of metaphysics be — as is fitting — very lightly emphasized in the mere descriptions of scientific psychology. It is still scarcely possible to avoid increasing the emphasis upon this side when the more important and more truly scientific function of the psychologist is attempted; this consists, of course, in explanation of the facts. For to explain is to show on what conditions, and in what regular sequences, and as implicating what activities and relations on the part of other beings,

the psychic facts actually occur. Or, to say the same thing in other words, to explain is to show why *I* think, or feel, or desire, or will, in this way rather than in some other. It is, ultimately, to propound some acceptable theory respecting the nature and development of this "I" to which all the activities of thinking, feeling, desiring, and willing are assigned. Suppose, then, that the investigator of mental phenomena is greatly captivated by the recent notable triumphs of psycho-physics and physiological psychology. He therefore determines to devote himself to the elucidation of the phenomena of consciousness in such ways only as seem to promise most of tangible and definitely verifiable results. This means, in his thought, that the psychic facts, the known phenomena of consciousness with which alone all psychological science takes its start, are to be explained solely by investigating the character of the external stimuli, the histological structure and physiological functions of the end-organs, or more particularly of the cerebral centres and tracts, which afford conditions, occasions, or causes of the several particular classes of facts. But, surely, explanation of this sort cannot dispense with the observation and certification, at first hand, of the very facts to be explained; and these the very nature of psychological science defines as "phenomena of consciousness."

But only self-consciousness can give us immediate knowledge of psychological facts, — knowledge by direct observation, that is, of the facts of consciousness, as such. Here, again, emerges the distinct danger, and, we believe, the inevitable necessity of assuming some kind of virtually metaphysical hypothesis regarding this "Self" which so mingles with all the psychic facts. But even if the investigation proceed with the determination to regard the phenomena as *mere* phenomena (*of* no mind, and *to* no mind), what shall be said of the necessity for metaphysics of some sort when detailing the complicated physiological and physical

conditions on which these phenomena depend? This necessity is most obvious and imperative in that kind of psychology — namely, cerebral psychology — which some of its more ardent and unreflecting advocates have declared to be the only scientific psychology. For here nothing can be more vain and illusory — yes, even more unfair and misleading in a blameworthy way — than to claim that such a form of psychological science can be built upon the basis of a non-metaphysical phenomenism. In saying this, we well know what is customary. But it is precisely against what is customary that the present protest is made. And not a word of the charges implied in the foregoing sentences is unjustifiable; not a word, therefore, will need to be retracted. *A scientific psychology which explains known psychic facts by a strict correlation of them with known cerebral facts — both classes of facts being understood alike as mere phenomena without any metaphysics whatever — not only never has been established, but from the very nature of the case it never can be established.*

The psychic facts may indeed be known as facts demanding explanation. But the correlated, or pre-conditioning, or occasioning cerebral facts are, and always must remain, nothing more than highly conjectural happenings, in an inferred or assumed entity, which can never be directly observed by either external or internal means. Or, suppose one insists upon cultivating psychological science simply as a correlation, in uniform modes of sequence, of two series of phenomena. The particular series of phenomena which are assumed to stand for those changes in the brain that afford the explanatory conditions of the known phenomena of consciousness can never be regarded, without metaphysical assumptions, as anything but other phenomena of the same psychologist's consciousness. Moreover, these particular phenomena, on which is laid the stress of explaining *such* wonderful phenomena as are the known psychic facts, con-

sist of a few imperfect and wofully meagre perceptions, always *post factum* and almost always *post mortem*, pieced out by crude conjectures as to other possible perceptions. And the conjectures admit of future verification as facts *only* if we could perceive what we never have perceived, and never can hope to perceive.

More concerning the absurdity of the claim that a science of psychology can ever be built up by establishing correlations between two classes of known phenomena, one of which shall consist of brain-states, without any metaphysics whatever, will be said later on. It is enough here to return to the indubitable truth that, when speaking of cerebral conditions, or antecedents, or concomitants, as explanatory of psychic facts, nobody means *mere* phenomena. No advocate of physiological psychology really supposes that he is contributing anything to a "natural science" of psychology without making use of naïve and uninstructed metaphysics. The claim to cultivate psychology without this much of metaphysics can scarcely be met fitly with anything better than the charge of inconsistency or insincerity. What every student of physiological psychology actually accomplishes in advancing his science depends at every step upon inferences. These inferences are permeated through and through with metaphysical hypotheses, and they lead toward the hope of a knowledge that must ever walk largely by faith. They concern real beings in which changes, wholly out of power to put themselves in evidence as *mere* phenomena, are assumed to be taking place.

To assume the possibility of cerebral psychology as a "natural science," wholly without metaphysics, is therefore an absurdity. The insufficiency, but by no means the absurdity, of the claim to cultivate psycho-physics and experimental psychology without metaphysical standpoints or metaphysical assumptions can be made equally clear. Here, however, there exist, on both sides, so to speak, a series of

phenomena which can be known as phenomena, and which can be compared as such. For example: In discovering and testing the laws of color-mixture, of stereoscopic vision, or of illusions of visual perception, a series of so-called *physical phenomena* can be arranged which, in some sort, are the observed and well-known immediate antecedents, or concomitants, of a series of connected *psychic facts*. The same thing is true of investigations undertaken in the interests of Weber's law; or of any other disputed principle in psycho-physics, in the narrower meaning of this latter term. On the contrary, no discussion of a physiological or cerebral basis for the empirical principle must be admitted, unless we are prepared to let our "phenomena" slip over into the region where we need assumed entities to serve as their "bearers," as the real "substances" in which they are inferred or conjectured to take place.

Nor can *such* a continuous series of physical phenomena as would serve to establish, even in the most limited way, what M. Flournoy has called the "psycho-physical principle of parallelism," be gained without dependence upon the ordinary common-sense realism as at least a tenable, working metaphysical hypothesis. For, as every one knows who has any practical acquaintance with what really takes place in conducting such researches, the physical series is never given as "continuous;" it is never known in any such shape as that it can be placed "parallel" to the psychical series, in the form of actually observed phenomena. As *a series* even, that is to say, it always consists very largely of inferred or conjectured changes in real beings, whose existence and activities must be brought into consciousness, and kept in consciousness, in order to be compared with the parallel psychic series, in a metaphysical rather than in a *merely* phenomenal way. Nor does this disturb the practised investigator, experimentally, of psychic phenomena. For he is not thinking at all about the possibility of estab-

lishing psycho-physics as theoretical phenomenism; he is rather taking the ordinary common-sense metaphysics into his scientific researches, in an uncritical but wholly justifiable way. Nor does he begin to cry out against metaphysics in general, as the "spoiler" of psychology, or to play the part of a "Janus" showing his teeth at speculative hypotheses, instead of endeavoring himself consciously and critically to adjust his own metaphysics to the empirically determined facts.

The necessity of employing some metaphysical standpoints and metaphysical assumptions in the pursuit of scientific psychology as explanatory becomes still clearer when the comparatively narrow fields of physiological and psychophysical investigation are left behind, and a return is made to the consideration of the larger and more comprehensive domain of general psychology. In this domain we encounter the problems of knowledge, of self-consciousness, of thought, of ethical sentiments and ideas, and even of the origin and development of human belief in "reality." Indeed, what are these so-called metaphysical hypotheses themselves, — what are so-called Materialism, Idealism, Monism, Dualism, and all the most elaborate systems of speculative and reflective thinking, all the weird ideas, most abstract and remote from empirical data, — but psychoses demanding treatment at the hands of psychology? This treatment must, indeed, be undertaken from, and confined to, the psychological standpoint, unless we frankly and intelligently pass over from the field of psychology to the more wide and all-embracing domain of philosophy. But in the very explanation of metaphysics itself, of the same metaphysics which helps, as well as of that which spoils the empirical science of psychology, this science must have its say. Metaphysics, considered as phenomenon of consciousness, is a psychological problem. Metaphysical hypotheses are successions of psychoses demanding to be faithfully described and then explained.

Now, for the explanation of many psychic facts and tendencies, if we may so speak, in the onflowing stream of consciousness, even when one remains faithful to the distinctively psychological point of view, some ontological theory can by no means be regarded as useless or insignificant. *These* facts, too, like all psychic facts, must be not only described as they occur, but also explained, if possible, in all that fulness of reality which belongs to the experience of the human race. Here, too, it is the total psychosis, or the trend in development of the entire mental life, which demands to be explained. But who would venture to deny that what men mean by saying "I know" involves a network of ontological hypotheses? The psychological analysis of any state of so-called knowledge, of any of those psychoses properly described by the affirmation "I know," shows that all knowledge implicates reality, envisaged, inferred, believed in, — we do not now stop to inquire as to the manner of implication. Especially is this true and obvious of every act of so-called *self*-knowledge; for the psychologist is simply ignoring what everybody means by the word, unless he understands the reality of the self-knowing and the self-known, the one Self, to be involved as an immediate datum of experience. And — to take another example — who for a moment thinks of describing what takes place when he tugs hard at a stone, and at last feels it giving way before his efforts, or climbs, however slowly and wearisomely, the mountain's side, as a correlation between two series of phenomena which needs no metaphysical hypothesis of a real being "working effects" and producing changes in a world of real beings related to itself?

One might even be disposed to ask, What better explanatory hypothesis for the psychic fact of conviction or belief in reality can be given than its own ontological verity? What better explanation of the knowledge or belief of men that the *I* which thinks, feels, and wills really exists, and is the

real subject of these changing psychoses, than the metaphysical hypothesis that this is so? What better explanation of men's convictions that they are causes, and active agents, and "work effects," than the metaphysical hypothesis that this is so? To be sure, one's courage as to the future of cerebral psychology, even after its expected Copernicus or Lavoisier has arisen, together with one's great faintness of heart as one looks over the assured results of our present attainments in this line of science, may well make one wary of metaphysical hypotheses in general. But as to how psychic facts called facts of *knowledge* are ever to be explained without some kind of an ontological theory or conviction, we find it impossible to form even the most shadowy conception.

In general, so far from holding it to be true that metaphysics has nothing to do with the explanations of psychology, we think that in this science, pre-eminently, speculative hypotheses of the right order, when rightly employed, throw a flood of light upon many of the most important and yet most obscure of the facts. For, after all, *the final aim of psychology*, however it may strive to start with and keep close to and ever return upon the facts, *is to understand the nature and development, in its relations to other beings, of that unique kind of being which we call the Soul or Mind*. And this is what all, except a few overtimid psychologists who are morbidly afraid of the scorn of physical science and rabidly antagonistic to metaphysics in psychology, really believe. Even these psychologists can scarcely write a half-dozen pages upon any of the problems suggested by the higher and more complex forms of psychoses, or discuss the nature of psychology and its relation to metaphysics, without showing that they really believe the same thing.

This whole subject will be made clearer, especially in its broader and more significant aspects, by a brief discussion of

the nature of philosophy and of the relation in which it stands to psychology as the descriptive and explanatory science of the phenomena of mental life.¹ It is not an easy matter to define philosophy, or to state its relation to the particular sciences; especially, perhaps, in these later days when the sciences have attempted, on the one hand, so successfully to define themselves, and yet, on the other hand, have reached out indefinitely in every direction and taken all possible forms of experience under the protection of their method and its exactions. Indeed, so long as one merely consults history in an uncritical way, or merely cites and compares the great authorities in science and philosophy, one gets only a confused conception as to what the latter discipline aims to accomplish. By a mixed use of historical criticism and analysis of the content and aims of the particular sciences, together with a judicious recognition of the deeper needs and ultimate aspirations of human reason, a fairly satisfactory result may be obtained. At any rate, we may learn enough to be of real assistance in our present pursuit.

The history of rational progress shows that men have always been disposed to more or less of reflective inquiry concerning certain problems of knowledge, of the being of things, of the nature of themselves, and of the ideals of conduct. Philosophy — if by it the fruits of such reflective inquiry be meant — is an older and more permanent interest than science. Vague and unsatisfactory as were its conception and pursuit among the ancient Greeks, the conception and pursuit of what we now understand by "the sciences" were yet more vague and unsatisfactory. The present alleged lack of interest in philosophy, and the relatively great amount of interest in science, are more specious than real. As we have already indicated, the particular sciences are themselves full of the most interesting and absorbing speculative tenets.

¹ On this subject more in detail, see the author's "Introduction to Philosophy," chapters i.-iv.

Under the guise of exorcists of philosophy they have absorbed no little of its surplus capital, and have thus set up in the business of philosophy, while displaying the sign, "This temple is dedicated to science only," over their doors.

Two or three things relative to the restless longings and perpetually new ventures of human reason are, however, tolerably clear. Men long for and perpetually seek such an acquaintance with what they are pleased to call "reality" as shall withstand all the assaults of critical and sceptical investigation. Science cannot profess its devotion to *truth* with one breath, although uttering its scorn for metaphysics with the next breath, without manifesting this same longing and quest of the human mind. Even the word "truth" has no meaning whatever except with reference to the implied conception of reality; and upon this point the naïve utterances of common speech are as suggestive as anything can well be: "Tell me truly, is it really so?" For the conception of "truth," as an ascertainment of the mind, is universally held to implicate the correlated extra-mental being and extra-mental transactions to which men think the word "real" is most appropriately applied. In spite of the reiterated protestations of certain devotees of physical science, that all they ask for or claim to find is the uniform collocations and sequences of phenomena, and the mathematical formulas which most nearly express these collocations and sequences, this desire for and assumption of a knowledge of reality cannot be removed from the body of physical science itself. To remove it would render science no longer what the very word signifies, — a system of knowledges; it would convert science into the individual dreamer's half-consistent dream.

Only a slight acquaintance with the aims and the accomplishments of the particular sciences is necessary, however, to know that their entire structure is underlaid and interpenetrated with assumptions which, as sciences, they take no pains to verify and little pains to understand. Even the primary

meaning of many of these assumptions, as they are made by common consent of the students of these sciences, is by no means always clear. Their more ultimate import is, of course, uniformly left out of consideration, unless science turns itself into speculative and reflective thinking; that is, unless science remains no longer science, but becomes philosophy. And when we compare assumption with assumption, and especially perhaps, the assumptions of the sciences of man with the assumptions of the sciences of nature, the obscurity deepens into that darkness which belongs to the most extreme confusions and contradictions of human thought. Here, then, is the region of darkest night from which issues, however vain one may think it will continue to be, the perpetual cry for help from the analytic and critical arm of philosophy. Ever to strive — and only the more seriously and eagerly the more difficult the task appears and the farther from present fulfilment — for a profound and comprehensive knowledge of these assumptions, and for a reconciliation of their most obvious and most persistent contradictions, is the definite and permanent task, set by its own nature, before the reason of man. It has not unaptly been spoken of as a task belonging to the progressive self-knowledge of reason itself.

Yet again, all knowledge, psychologically considered, appears not only as essentially an assumed commerce of mind with real being, but also as a development in self-unification. For the individual man all growth in ordinary knowledge — in *such* knowledge as is necessary simply to secure possession of “common-sense” so called, and to escape the unenviable reputation of foolishness or idiocy — is a unification of individual experiences into *one* experience, into experience as a rational whole. But the particular *sciences* advance still further the process of unification along the lines which belong to them, and which render them *particular*. For this purpose they relatively isolate a certain larger or smaller group of similar and connected phenomena, and expend upon

them all their powers of observation and inference. Thus chemistry regards certain phenomena for its own purposes of unification; thus biology deals with the one group of obscure and complex phenomena from which we derive the abstract conception of life.

But the more the particular sciences are pursued in a comprehensive and penetrating way, the more obvious become the numerous and subtle connections which exist between them. Not one of them can then be claimed to be particular in any such sense of the word as to imply that it deals with phenomena which are not inseparably linked in, by objective laws and by mental principles, with the phenomena of those other sciences which, nevertheless, bear different names. On the contrary, they can all be arranged, however roughly, so as to show how they build themselves up one upon another; and how they all alike imply some higher and more perfect unity for that real world to which all the groups of phenomena belong. Thus, for example, modern physiology extends itself, in the form called "general," over the phenomena of plant life as well as of animal life; modern chemistry, in the form called "physiological," reaches up into biology; modern molecular physics strives to reduce under more definite mathematical formulas, as determining the changing relations of the molecules, the phenomena of chemistry and of physiology; modern cerebral physiology and "general nerve-physiology" is scarcely content with the position of handmaid to psychology, but would gladly turn her former mistress quite out of the household of mind; and modern psychology is showing, to good purpose, that the view which regarded micro-organisms as explicable, with respect to the reasons for their behavior, in terms of undifferentiated bioplasmic "stuff," needs help everywhere from the assumption of a "*psychic* life" in even the smallest and simplest living forms. Meanwhile, we find the "scientists" themselves turning into philosophers of the most high-and-dry a

priori sort. They come forward virtually to maintain that their own recently discovered principles, and even some of their most doubtful hypotheses, must be allowed the supremacy of indubitable and eternal truths. They are even ready to dispute, on the basis of their discoveries, all the ethico-religious convictions that have hitherto been most comforting to the heart, however unsatisfactory to the intellect, of man. Hence some justification for the sarcasm of Clerk Maxwell that already two of the Newtonian principles of all mechanics have acquired an *a priori* character; and that given a sufficient lapse of time, the third will doubtless become *a priori* also.

The very growth of knowledge, then, calls attention in a forceful way to those needs of human reason from which philosophy ever springs afresh, and which it ever — however vainly — strives to satisfy. Mr. Spencer has well said that science is only the “partial unification” of knowledge; but the particular sciences themselves, when considered with reference to the relations they sustain toward each other, excite a demand for the more “complete unification” of knowledge. It is this complete unification of knowledge which, says Mr. Spencer, *is* philosophy. The rather is it true that toward this goal reflective thinking ever strives, though never with more than a partial success; it is this which constitutes the final aim of reason as it is expressed in all the current systems of philosophy. Here it is, then, that the synthetic arm of philosophical discipline is stretched out with an offer of help toward the particular sciences. But this help it cannot render, cannot even offer intelligently, without itself comprehending the principles of the particular sciences, and constantly acknowledging its dependence upon them. Yet by behaving itself aright, philosophy can do a work which the particular sciences can neither properly undertake nor fitly accomplish. It finds its own material, not only in those assumptions

which underlie the particular sciences and to which it must itself give a critical and yet conciliatory treatment, but also in those most general principles which these sciences have discovered as actually exemplified in the world of minds and of things. With all this material before it, philosophy can continue bravely to attempt the discharge of its own supreme function. It can give a speculative unity (*speculative*, not because it is *bare* speculation disregarding of fact, but because it is the highest synthetic handling of the facts after they are grouped, in a preliminary way, under subordinate principles) to the world as known by the mind of man.

In brief, then, it is the work of philosophy, by analysis and criticism, so to discover and shape the principles of the particular sciences as that they shall best serve as material for realizing its own final aim; and this final aim is the supreme synthesis of reason, the highest and most complete unification of knowledge itself. Or, to say the same truth in a different way, *Philosophy seeks a unitary conception of the real world that shall be freed, as far as possible, from internal contradictions and based upon all the facts of nature and of human life.* But inasmuch as its business is, not speculatively to construct an abstract or ideal world, but rather to understand the world as it really is, the primary work of ascertaining the facts, and of grouping them in well-ordered and verifiable generalizations, belongs to the various particular sciences. This is merely to say that the more complete unification of philosophy reposes upon the basis of the partial unifications of the particular sciences. Only in this way can philosophy come into, and keep within, the necessary and constant close contact with actuality. But since it rises far above the sciences toward a unification that is *complete*, it makes bold to frame some conception of a Unity of all Reality, in the light of which each of the more particular principles may subsequently be the better understood. For that understanding of the world as it really

is which alone will satisfy human reason is no mere gathering of facts, nor a mere grouping of facts, as such, under formulas more or less approximately exact. To understand the world rationally, we must know its import; fully to understand even the facts, we must know their significance; critically to understand the assumptions and generalized experiences belonging to the particular groups of phenomena, we must be able to view them in the light of universally applicable ideas.

For such reasons, in brief, we have elsewhere defined philosophy as "the progressive rational system of those assumptions and generalizations which belong to the particular sciences, all regarded as forming a Unity of Reality." Philosophy, then, is necessarily ontological in its aim; it necessarily includes metaphysics. To deny this is to refuse to admit the possibility of *philosophy*, as distinguished from science, at all. And even science, as has repeatedly been shown already, cannot distinguish itself, however naïvely, from mere day-dreaming without claiming to be ontological.

And now the more intimate and peculiar — indeed, the quite *unique* — relation in which the science of psychology stands to philosophy may, briefly, be made clear. Psychology is a sort of universal propædæutics to philosophy. By this something more is meant than is ordinarily understood by the term "propædæutics." For it is not simply as a preliminary discipline leading up to the successful study of philosophy, that the science of psychology holds its place in any well-arranged system of education. It is also true that in Nature's school of reflective thinking, where the problems are given out to the unfolding powers of reason by that hand which guides the order of rational development, a connection between the two is strictly maintained. Those problems of being and of conduct, reflection over which has for us no *merely* speculative interest, but some solution of which is necessary, in order to live the life of reason at all,

themselves start forth inevitably from the reflective study of our own mental life. It is in the effort to explain ourselves to ourselves that we most intelligently and persistently demand some explanation of the world of things and of other minds.

Furthermore, as could be shown with almost indefinite detail and array of convincing facts, every principal psychological problem leads up to, and lays heavily upon the very heart of reason itself a number of philosophical problems most important and most profound.

In vain does the psychologist start his scientific researches into the phenomena of consciousness, as such, with the determination to stop short whenever the pursuit of these researches seems likely to lead him over into the debatable regions of philosophy. He may, indeed, exercise a wise reserve here, with respect to the presentation of his assured results, whether before the public or before his own mind. But there is, after all, only one alternative, — either arbitrarily to limit reason in those inquiries which it belongs to its very nature to insist upon making, or else to pass over (if, indeed, it is possible even theoretically to draw a distinct and fixed line between the two) from the psychological to the philosophical pursuit of the same inquiries. What is it but the working of just this alternative which explains the confused theory and inconsistent practice of the writers whose views were examined in the last chapter? Plainly, it is just this, too, which guides the clearer theory and more consistent practice of the writers whose views were presented in the earlier part of this chapter.

Moreover, the history of psychological theories shows beyond doubt that it is the character of the psychological method employed, and of the attempted solution of problems primarily psychological, which chiefly determines the attitude of any thinker in philosophy toward the different possible solutions of the connected philosophical problems. Of

this inevitable influence there is not in all the history of philosophy a more conspicuous example than that same master-mind whose despairing view respecting the possibility of a scientific psychology was quoted at the beginning of this treatise. All the principal obscurities and defects of the critical philosophy of Kant are largely due to obscurities and deficiencies in his views of the nature and laws of the phenomena of consciousness. Indeed, with a meaning which becomes the more pertinent the more deeply one penetrates the doctrine of the three Critiques, one may safely declare that the defective psychical experience, the lacking psychoses, especially of the affective kind, of this great philosopher account, in no small degree, for the defective character of his philosophical system.

In particular, the problems of philosophy all emerge and force themselves upon the mind in the attempt thoroughly to comprehend and satisfactorily to solve the problems of a scientific psychology; and the attempts, along the different main lines of research in psychology, to deal scientifically with its problems all lead up to the place where this science hands these same problems over to philosophy. This tenet respecting the relations of psychology to philosophy admits of varied illustration. A few of the more important examples will now be discussed separately.

A recent writer has repeatedly maintained, in the very midst of a voluminous treatise on psychology as a natural science, that this science assumes knowledge as an already existing and inexplicable *datum*. In some sort this claim is no doubt true. For all attempts at ordinary knowledge or at science tacitly imply the possibility of knowledge in general, — the actuality of something to be known and the existence (at least in some meaning of the word, as a cognizing activity) of the knowing mind. But, on the other hand, it is one of the most important and difficult tasks of a truly scientific psychology, not simply to assume, but also to explain, those

psychoses which are called "acts, or states, of knowledge;" and this, with respect to their nature as complex mental phenomena, their origin in the onflowing stream of consciousness, and the laws of their development.

But here, as ever, it appears that, in the very description of this form of psychosis, the entire fact is not simply, "knowledge is" or "knowledges are," but "*I know*;" and when men say "*I know*," they mean something quite different from what they mean when they say "I feel," or "I will," or "I think," or "imagine," or "remember." When a dutiful scientific psychology has once faced this complex and mysterious psychosis, it is bound to discover that somehow the whole being of mind is implicated in knowledge, — memory, imagination, thought, feeling, will, and whatever besides belongs either to perception by the senses or to self-consciousness. Yes, something more than even this varied content, as reached in the attempt to regard this psychosis merely content-wise. For there is — however one may choose to express the fact — *conviction of reality* here; and if "conviction of reality" be wanting, why, then, "knowledge" is no longer to be called *knowledge*. This is true, whether the knowledge be that of Aristotle and Newton, or of the child or of the fool; whether it be knowledge most ordinary, or most extraordinary, and affecting the title of science, specifically so-called. And what shall the scientific psychologist do now? Shall he hide his head under the narrow and drooping wing of psychology as a pure and totally non-philosophical science? He may do so; and there are not a few writers that actually try to take this course. But readers who think clearly will see that this is precisely the place where a demand for something more becomes imperative upon the student of mental phenomena. Here, indeed, is where the need for a Theory of Knowledge which undertakes to examine from somewhat different standpoints the nature of knowledge, its validity

and its limits, begins more definitely to appear. But such a theory is philosophy in the form of Noëtics, or Epistemology. It must, like all forms of philosophical inquiry, learn its facts and laws from the science of mental phenomena; but it cannot forget that its own birthright is inalienably secured by the mind's own desire to understand the fullest import of these very facts and laws.

In like manner does the study of the phenomena of perception, as a collection of problems in scientific psychology, necessarily lead to a further philosophical treatment of these same problems. Indeed, the history of scientific research into these phenomena, and of the accompanying and resulting philosophical speculation, emphasizes the same conviction. The leading schools of metaphysics, the great and permanent distinctions in the answers which reflective thinking gives to the principal ontological problems, depend upon the way in which the different psychological aspects and determinations of perceptive activity are regarded. For the phenomenon to be explained is not that "sensations are," or that "mental representations are," or even that "perception is;" but that "*I perceive*," by sight or touch or otherwise, this or that thing, here or there, etc. Now this "*I perceive*" is plainly an affirmation of knowledge, and of knowledge not *about* things in general, but *of* some particular Thing. In the light of the full content of this psychological phenomenon, with the import which those who have experience of the content attach to that experience, the metaphysical theories of certain philosophical schools, both of the idealistic and of the realistic type, appear remarkably thin. Or let the answer which, as an alleged conclusion of scientific psychology, the English and French sensationalism, or the English associationalism, or much of the modern experimental and physiological psychology, with its revived sensationalism and associationalism (Ziehen and others) has given to the demand for an explanation of this psychosis be brought back face to face with the

psychosis itself. In vain do you talk to the plain man about sensations, and sensation-complexes, and localization, and eccentric projection, and revived and associated images of past sensations, merely; he knows perfectly well that his experience, even as a psychosis, is not yet satisfactorily explained; for he knows that it is an experience of *knowledge*, — knowledge of a *thing*. And here the psychologist is bound to go again over the ground of knowledge, considered as both a psychological and a philosophical problem; here he is bound, in the interests of full explanation, to face the inquiry, What about the Reality of that Thing? How, then, shall he, unless he pauses just at the place where the demand for an explanation of the psychic facts becomes most imperative and most interesting, — a demand which is now emphasized in the form of a phenomenon that implicates an envisagement by the mind of a real being that is not mind, — refuse to consider this philosophical problem?¹

Even more difficult, if not impossible, is it to keep apart the scientific consideration of the problems started by the actual experience called self-consciousness, and the reflective treatment of that cluster of obscure and difficult inquiries which constitute the special philosophy of mind. "I know that I am here and now, thinking, feeling, desiring, planning, doing thus and so." It is *I* and no other, whether mind or thing; *here* and not yonder, where the other is; *now* and not then, when I remember well I was elsewhere. *Really existing?* why, yes, indeed; existing really and indubitably in the most self-evidencing and simple manner in which any actuality can, alive to the very core. And now, again, in vain will the psychologist fence off the questions of the plain man as to the import of his experience, as to the truth that exists, and is known to be, in so wonderful a series of

¹ What teacher of psychology has not found interest in the phenomena of perception by the senses, as a matter of natural science, drooping, until the burning metaphysical questions wrapped up in the phenomena have begun to stir the minds of his pupils?

psychoses as this, by attempting to draw the lines tauter between psychology as a valuable natural science and the useless speculations of the metaphysics of mind. For the thing which the science is requested to explain is just this peculiar and contentful psychosis (or series of psychoses). What is this "I" that assumes to know the "me;" and this "me" that admits that it is known by the "I"? What is it "really to be" as the "I" knows itself to be? and What is this being "here and now" unless it involves a contrast with some "then and there" in which the "same I" was? When such questions as these are asked, in the form in which they spring immediately out of the effort to describe and understand the total psychic phenomenon, how will the psychologist, on the pretence of sticking solely to the task of a so-called natural science, reply without resort to metaphysical distinctions? Among these are quite certain to be the distinctions between "specious present" and "real present," between "phenomenal Ego" and "real Ego," between space and time as "objectively valid" and space and time as only forms of psychoses. But such language is empty verbiage without a quasi-appeal to the arbitrament of philosophy. What shall either put or find a meaning in it without that reflective thinking which is the essence of philosophizing itself?

Thus do the psychological problems started by the common experience of perception and of self-consciousness inevitably serve as propædæutic to the philosophy of nature and the philosophy of mind. Indeed, they do something more than gently lead the inquirer to these branches of philosophical discipline. They force him to undertake the cultivation of them in the interests of a more satisfactory result for his efforts to understand the psychic phenomena as such. But even to reach out toward this result one must, of course, suppose one's self capable of transcending individual consciousness, whether of the perceptive or the intro-

spective form. In order, also, to have a philosophy of nature, one must resort, not to a simple analysis of the object considered as *a Thing*, but to the sciences which tell us *about* things; and to have a philosophy of mind one must turn away from simple introspection of self toward all the indications which can be gathered as to the psychical behavior of other like beings.

The two main branches of metaphysics together constitute the philosophy of the Real. But the science of psychology discovers psychoses, no less actual as psychoses than any which have thus far been described, that point beyond themselves to the realm of the Ideal. In its attempt to explain the workings of ethical and æsthetical consciousness, as such, the problems of the philosophy of conduct and of the philosophy of art (ethics and æsthetics) have their rise. For the larger mission of a scientific psychology is not fulfilled until it has as faithfully described and carefully explained our human faiths and thoughts respecting what "ought to be" as our knowledge respecting what really is. Nor does this class of psychoses appear so separable, so distinct, either actually or theoretically, from the others, as to enable psychology to explain what men think or believe ought to be without relation to what they know or judge really is. And much of what they are entitled to say they know or infer really to be, cannot be explained without relation to what they think or believe ought to be. Hence, in a measure, the difficulty, both theoretical and practical, of giving any purely psychological discussion, for example, to the phenomenon of choice. No matter how firmly the determinist in psychology may resolve to maintain the attitude of a collector and correlator of phenomena, unprejudiced by metaphysical theories of causation, it is difficult indeed for him to carry out his resolution. Just because he regards his science as natural, he is tempted to receive a bludgeon from the hands of the natural sciences,

wherewith to threaten or assault the "free spiritual agent," if at any time such an agent should seem to raise his head amid the psychic phenomena. That such an agent *is* there, not only as necessarily implicated in a rational interpretation of the phenomena, but also as the self-conscious victor over various forms of reality, is the philosophical tenet of the opponent of determinism. This tenet, too, it seems equally hard to refrain from introducing as an integral part of the explanation of the phenomena.

Thus, too, in the debate of philosophical questions between eudæmonism and rigorism in ethics, or between the view which resolves the feeling of the beautiful into the experience of the sensuously agreeable and the view which distinguishes the two and regards the former as unique, the descriptive and explanatory science of psychology is well-nigh compelled to take a part. This is not so much because the empirical science is anxious to lift the responsibility from the shoulders of philosophy by coming over into its domain; it is rather because the science cannot discover any line clearly drawn between this philosophical domain and its own. For suppose that the psychologist finds himself compelled to describe the psychosis called the feeling "I ought" as something totally different from the memory, expectation, calculation, or present experience of the pleasurable, — how can he then fail to have the more ultimate question suggested as to whether that which ought to be, and that which is sought for pleasure's sake, is one and the same? Again, if the psychologist finds certain men maintaining that in them the beautiful awakens thoughts and feelings which imply what is objective, universal, and of ideal worth, how shall he refuse to consider whether the import of such thoughts and feelings has a basis in the world at large? But, of course, such problems are among those which psychology starts and then hands over to a philosophical ethics and æsthetics for their further examination.

It is, indeed, only indirectly that the attempted solution of problems in psychological science leads to the effort at that supreme synthesis which is the crowning work of the philosophic mind. But indirectly it does both point and lead in the direction of this synthesis. For it is scarcely *scientific* in the highest sense of the word to leave the different groups of psychological problems, with their scientific and philosophical aspects and answers, in isolated and fragmentary form. Here the psychological treatment of the so-called "categories" becomes important. To psychology, as an empirical science, the categories are only the most persistent and universal forms of psychoses themselves; but to say only thus much comes very near to saying that the categories are the universal and necessary modes of the behavior of mind. Some of them, however, are modes of the behavior of mind in the inferential knowledge of things; and "knowledge of things" is a term which it is difficult to employ with a full intelligence, without implying that forms of knowledge, considered as psychoses (psychological), are also forms of the being of things (ontological).

Thus the interests awakened by the effort to harmonize all, and to carry forward the science of mind to its ideal completeness, press hard upon us in the direction of that supreme unifying activity of reason, in which the essence of synthetic philosophy consists. It is not strange, then, that different inquirers, who set out together with the determination to discuss mental phenomena in terms of natural science merely, so often find themselves wrangling over the problems which it belongs to the philosophy of religion to undertake. For it is a large part of the supreme task of this branch of philosophy to find a real ground for ideals, and to vindicate the right of reason to project its ideals upon reality. The entire history of man's reflective thinking shows how closely connected are the views taken as to the nature, import, and destiny of the human mind (no matter

how much pretence of being merely scientific these views may make) with speculative views as to the nature, import, and destiny of the World as a Whole. It is not without meaning that "Microcosm" and "Macrocosm" are terms applied to the two.

It is not, of course, the intention of this treatise to undertake the speculative discussion of all the problems handed over by psychological science to further reflective thinking. The problems of Knowledge belong to Epistemology; the general problems of Being belong to Metaphysics (in the broader sense of the word); the problems of the real being and relations of Things belong to the Philosophy of Nature. Certain points of view, and even certain conclusions, from all these particular branches of philosophical discipline will be assumed in the discussions which we propose. Although "freedom of will," and the holding of ethical and æsthetical ideas, are activities belonging to the nature of the mind, and so, it would seem, naturally falling into the department of the philosophy of mind, these problems will be reserved for philosophical ethics and philosophical æsthetics to discuss. Under the heading, "Philosophy of Mind," as the term is to be employed in this volume, we separate (somewhat arbitrarily, it is to be admitted) a certain class of problems which psychological science hands over to philosophy for a more thorough examination, and for a solution, if solution can be found. These problems are, for the most part, started by the psychology of that form of human experience which is called the consciousness of Self. It is the Self, however, not simply as known immediately to itself, but also as scientifically known in its relations to the bodily organism. And although we are confessedly giving a speculative and theoretical treatment to the phenomena, and are assuming for this treatment certain postulates of a theory of knowledge and of a metaphysics of things, we shall hold ourselves responsible at every step to the empirical science

of mental phenomena. Indeed, this essay in the philosophy of mind is deliberately based upon previous long-continued researches into the facts and laws of a scientific psychology. To these researches appeal must be made for the right to speculate as to the nature of mind. The right — we believe — has been earned by careful study of the mental phenomena from all possible points of view. And it is the author's controlling wish that the validity of the following speculative conclusions should constantly be brought face to face with the conclusions of the empirical science of mind.

CHAPTER III

THE CONCEPT OF MIND

PHILOSOPHICAL discussion of the nature and reality of Mind, and of its real relations to the bodily organism, has often been rendered unnecessarily obscure by certain defects and fallacies which have their rise in psychological science. For this reason, chiefly, a metaphysical essay of this sort should first make the attempt to set forth its own grounds so far as they are discoverable in the actual experience of men. We begin, therefore, by considering the origin, nature, and development of the concept of mind. Or, since there is danger that even this introductory discussion may be undertaken in a manner too abstract, too far removed from the daily psychic life of the multitude of mankind, the same inquiry may be expressed in yet more familiar terms. What do people generally *mean* when they talk about "the mind," or when they speak and think of themselves and of others as "having minds," or as "being minds." [The term mind, in preference to the term soul, need not be insisted upon. It has indeed its obvious disadvantages; among which perhaps the greatest is this, that it emphasizes almost unavoidably the side of intellection and of ratiocination, to the relative or complete exclusion of those affective and conative aspects of consciousness which equally belong to the real nature of the mental life. But the word "soul"—the equivalent of which in German, *Seele*, is employed safely by writers of

every shade of philosophical tenets — can scarcely be used in English without implying undesirable theological assumptions or evoking obstinate theological prejudices].

Any satisfactory inquiry into the *Concept* of Mind must plainly take its start from the standpoint of empirical psychology. Its very nature as an inquiry is defined by the effort to set forth descriptively, and then as far as possible to explain, those actual phenomena of consciousness to which the use of the term corresponds. Only as this course is faithfully pursued (and by faithfully we mean in form true to the facts, and true to all the facts) can the subsequent more speculative and theoretical discussion of mental phenomena claim credence and respect. For the value of any discussion consists in the amount of light which it throws upon the import of such inferred truths as are certainly implicated in the facts. In the interests of a sound philosophy, it is quite as important that all the truths (and no other conclusions than these) implicated in the facts should be discovered, critically examined, and systematically expounded, as it is important for a truly scientific psychology that it should describe and explain all the psychic facts. *The exhibition and defence of the legitimate inferences and ulterior import belonging to psychic facts, as faithfully described and scientifically explained, — this is the Philosophy of Mind.*

But if the customary treatment given by psychologists to those psychoses which may properly be called “concepts of mind” be compared with the actual psychoses themselves, it will be found — we believe — to be characterized by several important defects and even more important fallacies. Two or three of the most important and common of these will now be briefly discussed. The primary point of view to be assumed shall be that of scientific psychology.

It is a most important fallacy in much of the current psychology to assume that the whole of any mental phenomenon is described and explained when the mere “*content*” of con-

consciousness has been described and explained. That is to say, the larger number of those who cultivate psychology as an empirical science habitually regard consciousness, and the phenomena of consciousness, merely "content-wise," as it were. Thus the descriptive part of the science is limited to a statement of what particular qualities and quantities of sensations, or what particular associated images of past sensations, or what particular forms of feeling, are contained in, and so themselves comprise or constitute, the total field of consciousness. It is, indeed, possible to employ the phrase "content of consciousness" so as virtually to exclude from the task of descriptive and explanatory science all considerations that have no reference to answering this definite question: What is the particular kind of conscious state, the psychosis, now existent; and why is it this rather than some other psychosis; why an A rather than some B? Such psychology can always, of course, stop the mouths of objectors by asking, "What is there left of any phenomenon of consciousness to describe and explain, if, *ex hypothesi*, there is nothing in particular left, no definite content remaining to be described and explained?" Of course, also, no psychosis can be scientifically treated in neglect of its description and explanation, content-wise. For a psychosis without content is equivalent to no psychosis at all. There are no phenomena of consciousness in general; there are only phenomena which have such and no other content, and which need to be explained and described with reference to their concrete definiteness, if they are to be described and explained at all.

Such admissions as the foregoing are very far, however, from justifying the course of those students of scientific psychology whom we have just accused of serious defect and fallacy. For their fallacy is, in its very nature, a defect. It does not consist in too careful recognition of the necessity of dealing scientifically with the phenomena of con-

sciousness, content-wise. It consists, the rather, in an almost total neglect and virtual if not explicit denial of another aspect, a different "potency," equally belonging to all the phenomena of consciousness. *For all consciousness, and every phenomenon of consciousness, makes the demand to be considered as a form of functioning, and not as mere differentiation of content.* Phenomena of consciousness are always conscious activities as truly as they are contents of consciousness. Consciousness is itself consciousness of activity, — fundamentally so; and it is so all the way through from the lowest to the highest and most developed forms of functioning. The task of a scientific psychology is, therefore, as truly the description and explanation of phenomena of consciousness, considered as forms of active functioning (of consciousness "function-wise"), as it is the description and explanation of the particular qualities and quantities of the phenomena regarded as passive states (of consciousness "content-wise"). In saying this, our intention is not at present to fall back upon any metaphysical doctrine of Will as the ground and essence of all mental life, — whether in the purely speculative form of Schopenhauer, or with the modified and more scientific character given to it by Wundt. "Will," indeed, as we have elsewhere shown,¹ is a term without meaning unless it be employed to designate a complex faculty, developed in the course of experience and involving all the more primary forms of the functioning of mental life.

The proof which a scientific psychology, faithful to all the psychic facts, has to give for statements like those just made cannot be presented here in detail. For such proof the philosophy of mind appeals chiefly to the empirical study of the phenomena of attention, of conation, and of discriminating consciousness. The conclusion, as it is

¹ See "Psychology, Descriptive and Explanatory," especially chapters xi. and xxvi.

justified by the science of mental phenomena, may be set forth in the following quotations (for the fuller proof reference is made to the work from which the quotations are taken):—

“The relation of attention to the conative aspect of all conscious activity has been much emphasized by modern writers on psychology. . . . When, then, it is affirmed that all attention, even the most primary, is influenced by conation, it is meant that attention rises and falls, is distributed and re-distributed, in constant dependence upon the varying amounts of psychical self-activity which characterize the different mental states. For, from the most fundamental point of view, all psychic energy *is* self-activity; it appears in consciousness as the energizing, the conation, the striving, of the same being which comes to look upon itself as attracted to discriminate between this sensation and that, or compelled to feel some bodily pain, or solicited to consider some pleasant thought. This aspect of conation — the immediate awareness of being self-active — belongs to all passive or impulsive or forced mental states as truly, though not in the same way, as to the so-called distinctively active and voluntary states. Expressed in popular and figurative language, it may be said, If the attention is impelled or forced, still it is *my* attention; *I* yield to the impulse; *I* submit to the force. And this psychical yielding or submission, especially when it is accompanied by the consciousness of *striving* to yield or not to yield, to submit or not to submit, is the conative or volitional aspect of all my mental life.”¹

Or, again: “The presence of the aspect, or factor, of ‘conation’ must be recognized in all psychic facts, and in all development of psychic faculty. To be the subject of any psychosis is always — to speak roughly — to be doing something. Every sensation and idea, every phase of change-

¹ Psychology, Descriptive and Explanatory, pp. 83 f.

ful feeling, may be said (with no unmeaning figure of speech) to furnish the soul with a challenge to arouse itself and act out its own nature, or express its will. Nay, more; so far as we can obtain evidence concerning the very beginnings of mental life, co-etaneous with the first having of sensations and the most primitive experience of being affected with pleasurable or painful feeling, spontaneity of active consciousness, psychical doing and striving, may be discerned. . . . By conation we mean to designate a primary and indubitable datum of consciousness. . . . *All psychic life manifests itself to the subject of that life as being, in one of its fundamental aspects, its own spontaneous activity.* All complex psychic facts are fully described only when we add to the phrases — I have such sensations, and recognize such objects, and feel affected so and so — this other equally pertinent and necessary declaration, *I now act* in this or that way. . . . The fully developed psychological expression for conation is, then, as follows: I act and I know that I act, — this as truly as I see, or hear, or feel pleasure or pain, and know that I have the sensation, or am subject to the pleasure or pain. For *psychology*, active consciousness is identical with consciousness of activity. . . . Indeed, if any statement based upon purely psychological grounds and having to do with the description and explanation of facts of consciousness, as such, can be depended upon, it is that which affirms the continual presence of conation as consciousness of activity. Indeed, here we reach the most fundamental of all psychic phenomena.”¹

Yet again: “Primary intellection is not so much a faculty in the sense of being a form of mental life separable, at least by a process of abstraction, from other most closely allied forms; it is rather that very activity which furnishes conditions to the formation of every psychosis as related to others in the stream of consciousness; it is the process of

¹ Psychology, Descriptive and Explanatory, pp. 212, 215, 219.

elaboration indispensable for the formation of all faculty. . . . Regarded as activity (and so, pre-eminently, it must be regarded), it *is* that form of psychic energizing which accomplishes the elaboration of all materials, the organization of all processes and forces, the development of the total life of mind. . . . Every psychosis, however elementary and simple such psychosis may seem to be, *is* something more than the sum of the so-called elements comprising it, — for example, such a complex of sensations, such feelings, so much conation, as content, etc. *Every state of consciousness is not only capable of being regarded on the side of passive content of consciousness, — it must also be regarded on the side of active discriminating consciousness.* . . . The very term ‘faculties of the mind’ implies different forms of functioning which consciousness *discriminates* while assigning them all to the one subject of psychical states . . . In criticism of the popular figures of speech it scarcely need be said that *consciousness regarded as objectively discriminated, and consciousness regarded as discriminating activity, are only two sides, as it were, of one and the same consciousness.*”¹

There is scant cause for wonder, then, that those psychologists who deny, or overlook, or even unduly minimize this conative aspect of all consciousness should find no evidence of the presence of an “active agent” in the phenomena of consciousness. Hence arise some of the most extreme opinions of a psychology that, whether studied as an empirical science or as a rational system of assumptions and inferences regarding the ulterior explanations of mental phenomena, thinks to dispense with the so-called Soul or Mind. Just as little reason for wonder is there that people generally take no account of the negative or agnostic metaphysics which results from so defective an empirical science; they cannot even comprehend what it means. For however little the psychologically uninstructed man may be able to tell in

¹ See “Psychology, Descriptive and Explanatory,” pp. 288 f.

an intelligible and defensible way, what he means by speaking of himself as having, or being, a soul or a mind, what he does really mean is chiefly due to this unassailable fact of his consciousness of activity. To be doing something, and to be aware of it, — this *is* the very experience on the basis of which, chiefly, men construct their conception of the Self; and they could, perhaps, easier tell what they mean by being a mind with no definite content of sensation, feeling, ideation, or thought, than with no definite form of agency or conscious activity attributable to this Self. But of all this, in so far as it is warranted and demanded by the phenomena of consciousness, we shall speak later on.

Another important fallacy, which often profoundly influences the philosophy of mind, but which originates in a defective psychological science, concerns the very nature of conception itself. On the one hand, it is often assumed that to have any conception of a Self or Mind, implies some actual envisagement of a pure, spiritual Being, that somehow presents itself to itself as a statical object (at least, if one could only *think*, in lofty, non-sensuous, and strenuous fashion enough) for its own contemplation. From this false and ghostly psychology emerges all the most high and dry doctrine of Subject and Object, of Subject-Object, etc., to disport itself before a gaping crowd of spectators in the metaphysical show-room. The spectators are required to recognize their own concrete, warm-blooded, and sensuous selves as duly represented in such pale ghosts of abstract thinking. This, of course, Hans and Bridget, and even many another somewhat more advanced in the study of psychological phenomena than these, find it quite impossible to do. Thereupon the advocates of "psychology without a soul" make a rally in their turn; they think to capture and hold in exclusive possession the theatre, if only they can succeed in driving out such ghosts as these. This feat of expulsion they expect to accomplish by the strange expe-

dient of chasing them round and round, in front of and behind the sensuous paraphernalia of the place, — the effort being to keep them perpetually wandering from pillar to post: as though the thing (first both in time and in importance) for the psychologists of both parties to do were not to acknowledge that these alleged products of abstract thinking are indeed nothing better than *ghosts*. But then (next in time and not less in degree of importance) comes the necessity of showing the realities whence such ghosts arise. For nothing can be clearer than that, if there are no realities, then there are no ghostly semblances or representatives of realities. Men do not dream of things of which they have absolutely no knowledge in waking life.

The procedure which leads the advocate of empirical psychology without the assumption of a soul to the conclusion that there really is no soul, not infrequently takes the following course: So often as I examine any actual, concrete state of my conscious mental life, I find there no entity that need be called *the* soul or *the* mind; I find only the ever-present sensation, idea, or thought. And if I try to grasp and hold the present psychosis, in order to see whether, in some particular form, it may not seem to give unmistakable evidence of the presence of a real being for the Self, — then that which indubitably *exists* (namely, the present sensation, idea, or thought) has slipped from me, and has given place to a new and changed conscious state. But the same thing follows in the case of this new and changed conscious state. It, too, is only knowable as a wave, rising and falling, in the stream of consciousness. Indeed, in speaking of what I am, so far as I can catch my real and concrete self in consciousness, as a conscious phenomenon, and so as admitting of scientific description, — not to say explanation, — the very term “stream of consciousness” is a gross exaggeration of the quasi-permanent character of this “I,” or Self. For a “*stream*” implies permanent banks

that, really existing, give direction to and make possible the existence of the stream. Moreover, every stream exists as an actual succession of simultaneously existing parts; it exists, all at once, as a stream consisting of sections with varying depths and different disturbances of the surface throughout its entire length. But it involves a complete misuse of the figure of speech to call the successive states of consciousness "a stream," as though any such permanency and reality of existence as this were implied for the totality of this succession. In this so-called "stream of consciousness" each section, each wave, comes into being only as the next preceding ceases to be; so too did that next preceding one come into its being; so will the next and yet the next succeeding wave begin to be. Where, then, shall we find, no matter how closely we search, any reality answering to this fiction of a permanent subject of changing states, — that is, of a real being, for the Mind; something more than, or over and above, the passing being, in ceaseless succession, of the conscious states?

The discussion of the metaphysical problems raised by this faithful description of the psychic facts will be attempted in due time. For the present, however, one may admit the truthfulness of such a description without any great distress. Or, at any rate, risings of distressful feeling may be partially allayed if one will keep two or three important truths in mind. It is hard to see how the reality of the Soul, if only one is to admit that there is such a reality, loses any of its interest or value by a confession of the general truthfulness of such a picture of one's experiences with one's self as has just been drawn. One might, indeed, ask of any stream of consciousness that appeared at the court of metaphysics as a candidate for admission to the kingdom of reality (and this not in pure facetiousness): What kind of reality other than this do you then, indeed, want? Would the soul itself choose to be any other kind of a real stream

than just this? Would it prefer to exist, as soul, in its entire psychical length, like a meadow brook or a mighty river, at one and the same instant of time?

But it is not our present purpose to minister to a mind diseased with metaphysical agnostics, by the cure of wholesome laughter. We wish rather to show that to expect any envisagement of the pure being of mind to take place is to mistake the very nature of the process of conception itself; and this, not primarily from a metaphysical but rather from a scientific and psychological point of view. Nor is the concept of mind the only sufferer when such demands are made upon consciousness to furnish, in proof of its reality, some instance of a concrete presentation of the reality as an object for itself. The same thing is true of every concept, — of the concept of the most real material existences, as well as of the most ghostly concept of pure "spiritual being" so called. For the indubitable psychological truth here pertinent is that conception itself is only a complex form of mental functioning; it is always a process involving a succession of psychoses related to each other under laws of the life of ideation and of thought. Let one ransack in the same way one's consciousness for one's concept of a horse, a dog, a tree, or a star; let the chemist ransack his consciousness for his concept of an atom, or of some particular combination of atoms; the physiologist his, for his concept of some bodily function or product of bodily functions, — and neither of these searchers will ever come face to face with the kind of object which he seeks. Here is where the false psychological theory of conceptualism has done as much harm to a realistic metaphysics of mind as has been done by an agnosticism which denies the possibility of having any metaphysics at all.

Respecting the psychological theory of conception, as based upon the actual facts of consciousness, we are then forced to the following conclusions: "Concepts, judgments,

and trains of reasoning are themselves, in actuality, only established forms of the movement of mental life.”¹ [The description and explanation of them — whatever they may be concepts *of*, or judgments *about*, or trains of reasoning leading to — belong to the “morphology” of intellectual life and development.] Or, again: “Conception, judgment, and reasoning must all be regarded as actual forms of psychoses in the flowing stream of consciousness; the rather do we designate by these words *certain successions of psychoses which derive their characteristics from the nature of their sequence, and of the laws (or fixed forms) which are shown by the states of consciousness in this sequence.*”² Of conception in general, a psychological theory which has regard to the actual phenomena of consciousness compels us to hold that its process “is a union of the reproductive function of consciousness with the thinking function, — the essence of the latter being the act of judging.”³ Thus the psychological universality of the process of conception is found to consist in “the consciousness that we are mentally representing as ‘belonging together,’ as ‘really related,’ what is given in sense and imagination as manifold; that we are mentally representing as identical what is experienced in presentation as various, in respect of place and time and other contents, without this variety itself being brought into consciousness.” To discover the peculiar character of the “reproductive function” which belongs to the process of conception, the empirical science of psychology must consider the changes that go on in the processes of representative image-making, and that are known as the “fusion,” “condensation,” and “freeing” of these mental images or ideas.⁴ While the psychological nature of the thinking function, of the activity of judging, which enters into all

Psychology, Descriptive and Explanatory, p. 430.

² Ibid., p. 437.

³ Ibid., pp. 439 f.

⁴ Comp. *ibid.*, chapters xii. and xiii.

actual processes of conception, is understood only when we note that judging, too, is a process, — to speak figuratively, — and that the “synthesis of judgment is accomplished by a flow, in determinate direction, of the stream of consciousness, intelligently uniting two successive waves of this stream so that they belong together under the laws which govern the whole.”¹

Psychologically considered, then, it is a foolish question to ask whether we can indeed immediately envisage, or otherwise come to a knowledge of, the Ego, Mind, Soul, or Self, as a pure and changeless Being, — a sort of statical and abstract object for its own self-contemplation. To “*realize*” such a concept of mind it would be necessary to change the essential nature of mind as it is capable of, and actually exercises the complex function of, conception. But, then, the concept of mind is at no peculiar disadvantage in these regards. If one is asked to conceive of any being whatever in this way, or else required to relinquish all confidence in the reality, unity, and identity of such being, why, then, one can only take the latter course. But it is a shallow and flimsy psychological science which can propose such an alternative as this: either no metaphysics, or else a metaphysics which the examination of fundamental psychic facts renders absurd. The bearings of all this upon the philosophy of mind will be examined in due time. But in treating of the concept of mind as an actual and incontestable phenomenon of common human consciousness, the case must not be prejudiced at the beginning by a false psychological theory of the nature of conception itself.

A third psychological fallacy, which too often warps and dwarfs the philosophical theory of the real nature and relations of mind, is a false or inadequate view of knowledge. For *self*-knowledge, if it can never be more than knowledge, certainly need not, as a matter of course, be less. If there

¹ Psychology, Descriptive and Explanatory, p. 447.

is any one subject in the consideration of which speculative theory, on the one hand, has cut itself free from an examination of the undoubted psychic facts, and, on the other hand, alleged scientific description and explanation of consciousness has obscured the more important facts, it is this subject of knowledge. Hence immortal works on the Theory of Knowledge, such as Kant's "Kritik der reinen Vernunft," and Fichte's various treatises on "Wissenschaftslehre," which soar aloft upon the wings of speculation in far too obvious disregard of actual and concrete phenomena of knowledge. Hence also those decidedly mortal and deservedly perishable essays in psychological science (?) which get no further in their examination of the phenomena than to recognize the sensational and image-making factors of that knowledge of one's self which comes through the senses.

But knowledge itself is a psychosis; it is a mental phenomenon demanding description and explanation at the hands of the student of scientific psychology. And if the adequate explanation cannot be found in any psycho-physical or physiological or statistical researches, why, then, so much the worse for their alleged satisfactoriness as the only truly scientific sources of psychology. It is true that psychological science, like all science, assumes knowledge, — its possibility, its actual possession, etc. But this assumption itself, like the phenomenon assumed, is also a mental phenomenon. Nay, more, and *much* more. *Knowledge!* this is just the one all important mental phenomenon; this is — we might say with warrant — the all-embracing, perfectly patent, and yet deeply mysterious, mental phenomenon. And when you have described and explained it you find yourself to have described and explained — at least as indirectly included in it — all the factors and phases of mental life and mental development. What, however, can be expected of a so-called scientific psychology which has no satisfactory science of those psychoses called "acts" or

“states” of knowledge to propose? If it inadequately recognizes, or explains away, or denies the facts of all knowledge, and the immediate inferences implicated in those facts, will it be likely to serve as a satisfactory basis for establishing the truths of *self*-knowledge?

Now, that knowledge *is* a psychical fact cannot be denied without assuming it; for this assumption is, of course, involved in the very proposal to have any science at all. And that self-knowledge *is* a psychical fact cannot be denied without assuming it; for this assumption too is involved in the very proposal to have any psychological science at all. Here again we are met with the conviction how inane and futile is the proposal to pursue science with a perfect freedom from all metaphysical or ontological assumptions whatever; how peculiarly inane and futile is the proposal to free psychological science from all ontological assumptions with respect to the reality, unity, and identity of the so-called Self, or Mind! For this is *the* (though not the only) distinguishing feature of the psychosis called “knowledge,” — that it is even when regarded as mere phenomenon, necessarily seen to be ontological.

The activity of *knowing* cannot be performed without involving the envisagement, or the valid inference of, reality. Activity which falls in any way short of this is something less than knowledge. The object of *knowledge* cannot be presentatively, or representatively, or inferentially, brought into consciousness, cannot exist at all as mental object, without implicating the reality of that which is thus objectively known. To be an object of knowledge is to be really, here and now, or then and there, for the knowing mind. Mental activities or processes there may be which do not reach reality, — such as the so-called having of sensations, of mental images, or of feelings, or the conducting of trains of pure thought, or the creation of bare ideals, or the holding and cherishing of mere beliefs, — but they are not processes of knowledge.

And to be an object of knowledge is to be known as real; whatever must be said about objects of imagination, of thought and belief, of the "opining" and the endeavor of the mind. Finally, when the activity considered as psychosis, from the psychological point of view, is an activity of so-called self-knowing, its fundamental characteristics as knowledge are in no respects changed. When the object of knowledge is the so-called Self, or Mind, or Ego, its fundamental characteristics, as object constituted and known by the knowing process, are in no respect changed.

The very effort faithfully to describe and analytically to explain the mental phenomena of knowledge, which a genuine and thorough psychological science requires, leads us to such conclusions as follow: "Two important general considerations — almost uniformly overlooked by psychologists — concern the scientific description of cognitive states of consciousness. (1) They are reached as the result of a course of development. *From the psychological point of view knowledge is a development. . . .* And (2) *This particular development, which we call 'knowledge,' involves all the activities of the mind.*"¹ More particularly, "knowledge implies the exercise of every form of *intellectual* activity. Knowledge implies the having of sensations, and the mental act of discriminating among them; but to know is something more than merely to be sensuously affected in various discriminable ways. Knowledge also implies memory and imagination; but to know is not merely to have mental images, whether identified or not with previous presentative experience. Again, no knowledge is possible unless the faculty of judgment is operative; unless relating activity, which is of the very essence of knowledge, is prominent in the psychical process. And yet we rightly distinguish between the most elaborate and highly developed logical thinking and what we call knowledge of things or of Self. Not the

¹ Psychology, Descriptive and Explanatory, p. 509.

simplest act of knowledge can rest upon logical conclusion alone. It is obvious, then, that *cognition involves the combined activity and development of all 'intellective' (if this word may be used in so general a significance) faculty.*"¹

But knowledge, as a psychosis, is not an affair of the intellect alone; it is an affair of feeling and will as well. "Nor does such feeling always operate upon the intellect by an influence that is separable in time. On the contrary, the real total fact (the actual psychic fact) is that the thing is *known* to be what it is both *felt* and *judged* to be. . . . The influence of feeling on intellect is not, then, influence merely from one faculty upon another external to it, as it were. The rather do *the so-called faculties of intellect and feeling blend in all cognition, and the complex result — the very object of knowledge — is determined by both.* . . . Pre-eminently true is it that we must strive and do, must will and realize the results of conation, if we are to gain and to develop knowledge. The psychology of attention as the determiner and director of all knowledge, suggests this truth. . . . Any one of us may experience it concretely by answering the challenge which every *real* object of sense-perception offers to us: 'Do you wish to *know* (not opine, or guess, or speculatively think) that I am, and what I am? then come and try your will against me.' The same thing is true of self-knowledge. As says Goethe: 'How can a man learn to know himself? By reflection never, only by action.' Pale images and dreams, or abstract thought about such dream-like things, is all that sensation and intellect could give us, if we were not beings of will standing in immediate relations to a complicated muscular system. Indeed, *it is largely if not chiefly by willing and experiencing the reactionary effects of willing, that we have any knowledge of Things or Self.*"²

One of the most profound psychological fallacies which underlies the two Critiques of Kant (both the "Kritik der

¹ Psychology, Descriptive and Explanatory, p. 510.

² Ibid., pp. 511 f.

reinen Vernunft," and the "Kritik der praktischen Vernunft") is a false distinction between faith and knowledge. For faith is conceived of, by this great thinker, as separated from and opposed to knowledge; and knowledge is supposed to be removed with regard to certain objects in order that room may be found for faith. But the undoubted psychic fact, the obvious characteristic of the psychosis as such must be stated as follows: "Knowledge involves belief in reality; and it is just this which chiefly distinguishes knowledge from mere imagining, remembering, or thinking, as such. When we *know* any object, it is not merely as object for the knowing process, but as a 'being' existing in some state, that we know it. When the belief or conviction attaching itself, as it were, to the reality of the being becomes sufficiently clear and strong, then one may say, I *know* the object, and may say this with an emphasis bearing some proportion to the strength of the belief. . . . The specific character of this belief, in contrast with other beliefs, may be brought out by calling it 'metaphysical.' And since it is not a particular acquired belief, but belongs to the very nature of knowledge as such, it may be called 'rational' and instinctive. In brief, then, *without this rational and yet instinctive (?) metaphysical belief, psychological analysis shows that knowledge is impossible.* . . . In maintaining that a metaphysical faith lies at the basis of all the existence and development of human knowledge, we only state a fact as scientific psychology finds it, and is obliged to leave it for philosophy — if possible — to explain." ¹

If, now, thus much of preliminary discussion may be regarded as doing away with certain current negative and agnostic conclusions respecting the nature and validity of the process of conception, and also as establishing on a basis of psychological science certain points of view from which clearly to discern the more positive truths respecting the

¹ Psychology, Descriptive and Explanatory, pp. 513, 514 f.

same subject, there is no need to dwell long in further details of exposition. A description of the origin, nature, development, and significance of the concept of mind, as an actual psychosis, is bound to include the following particulars: That state, or activity, of mental life from which this concept is derived, and to which it returns — as it were — with ever richer contributions of content to the same state or activity, is called “self-consciousness.” In every act of self-consciousness, however, some definitely discernible content of sensation, of imagining, of thinking, and of feeling is to be found. Every such act is, therefore, a consciousness of some complex state, — as a state of having such sensations, images, thoughts, and feelings; and all these, so far as each state of consciousness can be described *content-wise*.

Moreover, there are certain kinds of sensations which seem to stand in a peculiarly intimate and relatively inseparable relation to the content of every act of self-consciousness. These are, chiefly, either such sensations as are only obscurely localizable, although they belong to peculiarly intraorganic and vital processes; or they are such as are found to accompany all the so-called “pure” activities of mind, on account of their connection with the fixation and redistribution of attention, and with the feelings of effort which customarily accompany these processes; or, again, they are such as have a strong tone of pleasurable or painful feeling which forbids, for the time being, the objective reference of the sensation-elements of consciousness, and so compels or favors, the subjective reference of these elements to the *Ego*, as its states.

Furthermore, in the various concrete acts of self-consciousness, either of these different classes of sensations (sometimes one and sometimes another) may be relatively emphasized in the complex sensation-content of consciousness. Hence different organs of the body get personified and identified with the Self, or Soul, *but only with it as*

having such a concrete and particular form of experience. Thus sometimes it is the "heart" that feels joy or sorrow; again it is the "bowels" that are stirred with anger or appetite; yet again, it is the "head" that is lofty with pride, or is cast down with humility, etc. Different individuals, too, on account of characteristic differences of temperament or of experience, become customarily conscious of self as concretely defined by different forms of the sensation-content of consciousness. How this psychological law operates is illustrated in a very interesting way by the case of children. If we question them to find out what they chiefly understand by the "I" or the "Me" or the "Self," which they set for themselves as both subject and object of any sentence declarative of their self-conscious experiences, they are found to vary its bodily localization according to the concrete form of activity of which they are, by self-consciousness for the time being, aware. With the "I" that *loves* they identify the embracing arms, the swelling heart, and the lips used for kisses; with the "I" that *hates*, the set teeth, the clenched fists, and the swelling chest and heart, into which the hatred has poured itself, as it were. So, too, in adult experience, that part of the very self of which for the time being one seems most conscious, changes according to the characteristics of the more or less definitely localized sensation-content of the particular experience. Under bodily suffering I am, with the larger part of my very self, suffering with the pain now in my head, now in my abdomen, and now in my back. Thus, too, as we may facetiously say, the self-consciousness of the dyspeptic is chiefly the consciousness of his own disordered stomach and digestive canal; but the self-consciousness of the man with disease of the heart is the consciousness of the labored and irregular action of this organ.

Once more, that individualization of Self, which characterizes the self-consciousness of A from that of B is,

undoubtedly, in no small degree a matter of different kinds of sensation-content. For what each Self is to itself is no less truly different than what each Self is to some other self. Yet, further, so changed may the sensation-content of the experience of self-consciousness become, either in lapse of considerable time or with comparative suddenness, that one may emphasize the change by saying, "I seem to myself another Self from that which I once was." With the changing age of the individual, the changing characteristics of race-heredity and race-environment, and the changing degrees and forms of culture, this form of the content, which belongs to all self-consciousness, may greatly enlarge or diminish in extent and alter in complex quality.

But when the psychologist seizes upon any one form of sensation-content and identifies with it not only all conscious content but also all consciousness of functioning, and then sinks in this one aspect of sensation all the instinctive faiths and implicated inferences of self-knowledge, he becomes guilty of another most inexcusable defect and fallacy. No wonder that thinking which sets out from so pitifully meagre psychological analysis should conclude with so wofully narrow a philosophy of mind. We are told by a recent brilliant writer on psychology,¹ that, in his own case at least, "the 'Self of selves,' when carefully examined, is found to consist mainly of the collection of these peculiar motions in the head, or between the head and throat." And on this basis the conclusion, as scientifically defensible, is reached that "our entire feeling of spiritual activity, or what commonly passes by that name, is really a feeling of bodily activities whose exact nature is by most men overlooked." This is "the real nucleus of our personal identity." Hence follows the conclusion in philosophy that the "substantialist view" of the Soul has no standing in experience, and is quite "needless for expressing the actual

¹ James, "The Principles of Psychology," vol. i. pp. 301 f.

subjective phenomena of consciousness as they appear;" while "Transcendentalism is only Substantialism grown shame-faced, and the Ego only a 'cheap and nasty' edition of the soul."

Now we shall not venture to deny the testimony of any man's consciousness as to where he localizes his dominant bodily sensations whenever he makes a concentrated effort to conceive of the self, and to observe the effect upon the bodily sensations of such a concentration of effort. All this may well enough differ with different individuals, and even with the same individual in different concrete acts of self-consciousness. Indeed, there is abundant testimony to prove that great differences exist. But to resolve the entire self-known Self, even "content-wise," into any definite form of localized bodily sensations, is a quite unwarrantable procedure; and this no less so, however impossible it be found to purify the stream of self-consciousness from all such content of sensation. Even the author of the hypothesis just cited, after "dallying with it for a while," admits that over and above his bodily sensations "there is an obscurer feeling of something more." Some such conclusion must undoubtedly be admitted; and not only a feeling of "something more," but of something different, however persistently any particular form of sensation-content may assert itself. For just as soon as one detects in consciousness the sensations localized "in the head, or between the head and throat," one is equally compelled to speak of *these* sensations as states which the Ego *has*, not as all that the Ego *is*, — not even, by any means, all that it knows and feels itself here and now to be. For purposes of complete identification with the self-known Self, or as forming the whole constitution of the "Self of selves," these head and throat feelings are not a whit more competent than feelings in the finger-tips or in the toes. The utmost that can be affirmed of them is that perhaps in certain cases they most persistently accompany

all the individual's efforts at self-consciousness. It is one thing to say that in all concrete acts of self-consciousness we find ourselves having some at least obscurely localized bodily sensations, and quite another to say that these particular sensations are, or are regarded or felt by us as being, identical with our entire very Self.

What is true of all particular bodily sensations is also true of particular mental images, particular thoughts, particular feelings. These all, considered "content-wise," are emphasized as states in which *we* find *ourselves* whenever we perform the act of self-consciousness. But just because they change so notably, while essentially the same underlying intellectual processes and the same metaphysical faith, or leap to reality, goes with every act of self-consciousness, the images, thoughts, and feelings, with their actual concreteness, must be regarded as here and now *mine*; but they are not all that *I* here and now know, feel, and believe myself *to be*.

For — to return to a denial of that fundamental psychological fallacy which leads the author just quoted to resolve all feeling of so-called "spiritual activity" into peripherally located sensations — the truth is that in all actual, concrete cases of self-consciousness I am active, and am conscious of being active. Never can I resolve all that I am, and know myself to be, into mere passive content of feeling, much less of bodily sensation. Whenever I am self-conscious, I catch myself, not only in a state of being passively impressed with some form of sensation, and feeling, but also in the act of doing somewhat. Indeed the core and centre of my consciousness of self is the consciousness of functioning in some particular way, of being active thus and no otherwise. For to talk of a consciousness of *Self* that is not really an activity, a form of functioning, a conation as well as a sensation or a feeling, is to talk of an absurdity. And that "Self of the selves" which I seek and find, if ever my

search is successful, is chiefly the here and now concretely and actually active self. For a Self is no *self* that is not doing something; and an act of *self-consciousness*, which is not a consciousness of *self-activity*, is not an act of *self-consciousness* at all. This "active agent," actually here and now active and knowing itself as active, is indeed no transcendental being, up aloft in the heavens of metaphysics; but then neither is it submerged beneath the slime, or covered with the thin varnish, of purely empirical psychology. It is just that active agent which is *active* in the process of self-consciousness, and self-known to be active; and it is called *agent* because it acts in being self-conscious, and, as object, finds itself to be active agent. For any analysis of actual, concrete acts of self-consciousness which does not find this agent active there is simply inadequate analysis. No wonder, we remark again, that all men stare at the exposition which such psychology gives of the psychic facts; and then laugh to scorn the philosophy of mind which builds itself upon such psychology.

In order to attain any concept of mind, however, a process of reflective thinking (or rather repeated processes of reflective thinking) is necessary; and this process must proceed upon the basis of the concrete experiences had in the individual acts of self-consciousness. The result of this process of reflection is to explicate for thought what is actually implicated in the concrete experiences. But, as has already been repeatedly affirmed, this very reflective thinking and its so-called product (the formed concept of mind) is itself actually always a process; and to expect that it shall be anything else is to expect that, somehow, the concept of *mind* shall really not be a *concept* at all.

Moreover, as the true psychological view reminds us, all the concrete acts of self-consciousness, on the basis of which the generalizations resulting in the concept are performed, themselves imply thinking activity. They also imply

memory, and whatever other forms of intellectual life psychologists are compelled to recognize. But to say this does not do away with the validity or diminish the value of self-consciousness, or of the generalized concept of mind which takes its origin in these acts of self-consciousness. On the contrary, the statement simply calls attention to the true nature of the mental activities of self-consciousness and of conception so-called. All mental life is a development; all development of mental life involves the activity of all the so-called mental faculties. Different men come to be — with an indefinite number of degrees of speed, completeness, and variety of concrete phases or factors — self-conscious; and in this process of becoming they make use of all their developing mental powers of intellection, feeling, and conation. So, also, do they come to have, by more elaborate processes of reflective thinking, — and this, too, with an indefinite number of degrees of speed, completeness, and variety of concrete phases or factors, — the concept of Self. This development of conceptual knowledge must be regarded as dependent upon the development of self-consciousness; just as all conceptual processes must be regarded as dependent upon concrete and individual experiences. But, in turn, the result of exercising reflective thinking upon the individual experiences modifies these experiences themselves. For the character of a man's coming to self-consciousness depends upon the concept which he has formed of the Self.

The true psychological view of what actually takes place in the formation of the concept of Self, of *my* Mind, and then of *Mind* in general, explains the infinite psychological variety which the concept discloses. We may declare, not only *is* every Self, or Mind, different from every other; but every Self *conceives* of itself as different from every other. Here the fundamental and irremovable distinction is, of course, that made in the act of self-consciousness. But, on the basis of this distinction — as can be discovered if men

are questioned either directly or by indirect observation of the various expressions of their thoughts — every man's notion of Self differs from that of every other man. Since, however, the concept of Mind in general is more abstract by far than the concept of the Self, more agreement may be expected as to the "marks" of the former concept than of the latter. Yet different individuals, at different ages, different races and different stages and types of civilization, different schools of philosophy and other institutes expressive of the highest results of reflective thinking, reveal different notions as to the nature of mind. How, indeed, could this be otherwise than so? For every concept formed in the mind of man is also a matter of race development; it implies intellectual growth on the part of each mind, not only as an individual, but also as a member of the race. At the same time certain permanent faiths and assumptions, certain indubitable and unchanging experiences of knowledge, — some factors that are the same for every concept of mind, by all minds, — may be discovered. It is the business of the philosophy of mind to discover these, to explicate and expound them as they are found actually implicated and relatively unrecognized in the growing experience of mankind.

In general also, it now appears clear what is the natural course which the development of the concept of mind pursues. For children, and in childish individuals, and for the childhood of the race, the more concrete and sensuous elements, the elements of bodily sensation and of warm vital feeling having a pronounced pleasurable or painful tone, dominate imagination, memory, and thinking, in the process of forming the concept of the Self. For such stages of development, what is known to be true of "my" self is thought to be true of the mind of the other self than me, and of every other than myself. I am then to myself, in each concrete act of self-consciousness, chiefly a sensuous bodily self, warm

with some kind of feeling, and doing something in a manifest bodily way. And other selves are conceived of as similar to myself; so also of minds in general. But even in this low stage of development, if genuine self-consciousness has been reached, and if reflective thinking has operated upon the basis of self-consciousness, there is undoubtedly the feeling and the thought of "something more." For genuine self-consciousness implies acts of reflective thinking, and of conscious reference of more distinctively mental states to an agent active in them; and these forms of functioning, too, are self-felt, self-cognized, and made to contribute to the total result in the form of that concept of self which reflective thinking itself achieves. So that, by insensible degrees it is likely, the character of the concrete acts of self-consciousness becomes changed; and, in consequence, the concept of mind derived upon the basis of these concrete acts becomes profoundly modified. Those activities which are spoken of as peculiarly spiritual become relatively more emphasized. Then is the Self known to itself as imagining, remembering, feeling, thinking, and planning, without the so exclusive dominance of the vital and sensuous bodily functions.

When the human being, no matter how young or untutored, ceases relatively from those activities which emphasize the bodily functions, sits down with itself, as it were, and recalls in idea the past, or thinks out plans for the future, or reflects upon some problem of an abstract character, — if it observes itself self-consciously, it becomes aware of this so-called "spiritual self." True, it may still be forced to notice certain sensations "about the head and throat," or around the eyes, or elsewhere; but the "something more" than these is now the chief part of the experience. It is not less real, because it is not statable in terms of sensation-content. On the contrary, it is not statable in terms of sensation-content for the very excellent

reason that it really is not sensation-content, but is something "other" as well as "more."

Suppose, still further, that in some moment of dawning self-consciousness, in its yet more highly developed form, that belief in reality, or metaphysical leap, which somehow and somewhere surely enters into all knowledge, should itself be consciously recognized. This to be sure would not, it is likely, take place in the abstract manner of Substantialism or Transcendentalism as recognized forms of the philosophy of mind. But it might fitly come — and, indeed, experience amply shows that it actually does come — in some such way as to awaken the consciousness of that distinctness in reality which makes every Self set itself off from, and over against, the whole remainder of other minds and of all things. Here, as will subsequently appear, is the secret of that feeling of loneliness which only rational and self-conscious lives can have. And shall it be denied that men have these experiences, and that they get their notions of themselves and of other minds from them, — yes, plain men and women too, savage and untutored men and women, children of tender years, and those not more than half *compos mentis*? To have the experience is one thing; and to express it in the words of Jean Paul Richter is quite another thing: "Never shall I forget the phenomenon in myself, never till now recited, when I stood by the birth of my own self-consciousness, the place and time of which are distinct in my memory. On a certain forenoon I stood, a very young child, within the house-door, and was looking out toward the wood-pile, as, in an instant, the inner revelation 'I am I,' like lightning from heaven, flashed and stood brightly before me; in that moment I had seen myself as I, for the first time and forever!"

With the development of mental life as sensation, ideation, feeling, conation, and thinking, — all regarded as processes of this life, processes in consciousness and consciously cog-

nized states, — and with the constant accompaniment of that ontological belief to which we have referred, the birth and growth of self-knowledge is achieved. It may be regarded as a resultant, psychologically considered, of all these forms of functioning.

“So rounds he to a separate mind,
From whence clear memory may begin,
As thro’ the frame that binds him in,
His isolation grows defined.”

For a genuine self-knowledge involves the developed faculties of perception, of recognitive memory (with its development of time-consciousness, as determined and clarified by reference to some form of the succession of objective events), of imagination, reflective thinking, emotion, and will. This self-knowledge is, indeed, emphatically “something more” than obscurely localized bodily sensations; with their motor effects and concomitants. Thus much of a concept of mind it needs no specially trained powers of reflection to acquire. Indeed, without thus much of self-knowledge we cannot speak of a developed and adult human mind.

On the basis, however, of similar acts of self-consciousness, the highest, most comprehensive, and thoroughly defensible concept of what it is to be a “Mind,” as all human minds really are, is constructed by processes of reflective thinking, carried to their utmost limits. To claim this there is no need to introduce new “faculties” so-called, or new uses of the same faculties. The philosophical specialist’s study of the nature of mind aims only at accomplishing what all human striving in science and philosophy aims to accomplish; this is the highest possible elaboration of the data of experience, the supreme interpretation of the phenomena. *The philosophy of mind simply expounds the theory of what the Soul is on the basis of what the Soul appears to itself to be.* Nor need any sharp and irremovable line of distinction be drawn between the conclusions warranted by

psychology alone and those warranted by anthropology or biology. For only as the phenomena which the latter sciences gather and attempt to treat scientifically are interpreted in terms of consciousness, as known in self-consciousness, can they enter as data into the philosophy of mind. No investigator can escape from the circle in which he is forever asking, What really are other minds, as stated in terms of what I know myself to be? For the anthropological and biological sciences of mind cannot arrive at a real knowledge of mind unless they trust the individual's self-knowledge, to which these deliverances may appeal, and from which they may flow.

But this highest knowledge of mind is itself, from the psychological point of view, a process having more or less of actual content according to the degree of the development of the individual mind in which it takes place. It is the fullest possible explication of what is implicated in such an actual process, which the philosophy of mind attempts. In other words, we are now going to try, by a process of analytical and reflective thinking, to expound what every mind that has reached self-knowledge knows itself, as mind, actually to be. The implications of that concept of mind, whose nature, genesis, and development, as a series of psychic facts, psychology presents and explains, are to receive a theoretical exposition and development.

CHAPTER IV

THE REALITY OF MIND

ANY intelligent discussion of the questions, whether the mind is real; and in what sense, if at all, reality is to be attributed to the mind,—must borrow certain conclusions from general metaphysics and from the theory of knowledge. Without some preliminary conception of what is meant by “being real,” it is, of course, useless to inquire whether the *mind* is real. It is equally evident that the answer which each thinker’s reflection gives to the question, What is it to be real? will largely influence his answer to the question: Is, then, that which we call “Mind” also entitled to be called real? Moreover, if any inquirer is already so far gone in agnosticism as to doubt whether an answer can be given to either of these questions, or as even to deny that knowledge of the real is possible at all, debate over those particular inquiries which constitute the philosophy of mind may be quite superfluous. How can one philosophize in company with a writer who rejects the possibility of philosophy. How can one discuss a question in the metaphysics of mind before the man who, on theoretical grounds satisfactory to himself, abjures all metaphysics whatever?

It would be unreasonable, however, to expect any complete discussion of the possibility of metaphysical philosophy in general as a preliminary necessity for the discussion of questions in this particular branch of philosophy. Such an expectation would amount to demanding two voluminous

treatises on the main branches of a broad subject, as introductory to one treatise on another of its subordinate branches. This order of treatment, indeed, might seem commendable for one bent on proceeding most logically in the construction of an entire philosophical system. But from our present point of view all discussions in the philosophy of mind spring out of the demands of psychological science to have a fully interpretative answer to this inquiry: How shall we faithfully describe and satisfactorily explain the phenomena of human consciousness? In other words, it is the philosophy of mind as the supplement of empirical psychology, rather than as a derivative branch of a metaphysical system, that has just now enticed us into the general field of philosophy. We shall therefore content ourselves with borrowing a few of the most necessary conclusions from certain other forms of philosophizing. The more diligent cultivation and thorough defence of the entire domain from which we borrow may fitly be left for another time.

And, first, with what theory of knowledge should one approach all particular inquiries in the philosophy of mind? In general, this question may be answered by saying, With just such a theory of knowledge, of its nature, its possibilities, and its validity, as is assumed in entering upon any theoretical discussion. Only it is, of course, eminently desirable for us to recognize certain truths as to what that view, fundamentally considered, actually is.

Now, nothing is more certain than that in fact the fitting view, on approaching any philosophical discussion, is *not* agnostic with regard to truth in general; much less does it harbor so extreme a negative conclusion as denies the possibility, by knowledge, of reaching reality. On the contrary, it assumes the very truth, in yet fuller and more self-evidencing form, to which all thorough psychological analysis of knowledge draws attention. This truth, when stated curtly and without qualifications, may be expressed as fol-

lows: Knowledge and reality can never be considered apart. "Knowledge" that does not involve the correlate of reality, that is not *of* reality as its object, is not *knowledge*. "Reality" considered as apart from all terms and all possibility of knowledge, reality that is not known or conceived of as knowable, is for us no *reality*.

It is customary for those who assume an agnostic position with respect to all outcome of knowledge toward the side of reality, to identify knowledge of reality with a knowledge of being in general, of "pure" being, or of "being *per se*." In case, however, they abhor such highly metaphysical phrases too much even to take them upon their tongues contemptuously, they may content themselves with denying the possibility of knowing anything but phenomena. But since the existence of any "Thing" or any "Mind," when regarded as implicating somewhat over and above, or behind or beneath, the phenomena, seems to clash with this general denial, such agnostics are also customarily led on to forms of statement not essentially different from those which they so much abhor.

It is plain that the first thing to be done in all such debate as we are now entering upon is to distinguish clearly the meaning of the terms employed. In certain meanings of the words knowledge and reality, an agnostic position which denies or even doubts the power of the human mind to know reality, is simply suicidal. No, not "*simply*" suicidal; for it is such an agnosticism as can never so much as attain enough of life in the kingdom of reason to lose its own life by a natural death: commit suicide it certainly cannot, for very lack of life either to be taken away or to exercise in its own removal. In using certain other meanings of the same words, however, the most extreme agnosticism may be quite defensible; but then it may also be perfectly harmless. For if agnosticism only deprives us of something called "knowledge" which is not recognizable or attainable or val-

uable as *knowledge*, and of something called "reality" which is not recognizable or attainable or valuable as *reality*, we can scarcely have serious quarrel with it. When it is said, however, that "we can never know anything *but* phenomena," we are invited to consider a statement which is either meaningless, or else in every conceivable meaning of the words it employs is squarely contradictory of the most obvious facts of experience.

A few thoughts on each of the positions just taken must suffice. No one can affirm the impossibility of knowing reality, in such meanings of the words knowledge and reality as make the affirmation contradict the undoubted, fundamental facts of knowledge itself. I cannot tell you that I know that you and I cannot know, without assuming in this same agnostic proposition both the possibility of knowledge for you and for me, and also the reality, in some sort, of both you and me. And inasmuch as you are always a "thing" to me, and I am a "thing" to you, unless I know that things in some sort really are, I cannot regard my own utterances as a communication of even agnostic knowledge from me to you. Here agnosticism, in respect of its theory of knowledge, splits upon the same rock as that upon which extreme idealism in the form of solipsism has always been wrecked. I am real and you are real, as things and as minds, and both of us know this to be so; or, rather, we know each other as real, — otherwise there is not so much as a standing-place for a tip-toe to be found, from which to make the vault downward into the dark abyss of agnosticism.

But as for knowledge of beings *per se*, or of beings supposed to exist *per se* (if this "*per se*" means existence otherwise than as actual or conceivable objects of knowledge), — as to such knowledge and such being no concern need be felt over its fate at the hands of agnosticism. For such so-called knowledge of being *per se* is not *knowledge* at all.

This declaration is true whether the phrase be interpreted to mean Being that is abstracted from all concrete attributes or modes of activity in relation to other being, or Being that exists totally isolated and apart from other being, in itself, or by itself. The use of such phrases results in substituting an empty concept, or an attempt to think without thinking anything in particular as based upon actual experience, for the concept of knowledge as the facts of knowledge warrant that this concept should be formed. "Being *per se*," if any such being there be, is no somewhat about the possibility of knowing which we need either to care or to debate.

But freely to concede all this is quite another thing from consenting to the proposition that nothing but phenomena can be known. For we can no more speak of a knowledge of pure phenomena — that is, of phenomena as *merely* phenomena — than of a knowledge of pure being, or of being *per se*. Knowledge of nothing but phenomena is not *knowledge* at all. For the very phrase "nothing but" (or its equivalent, whatever this may be) reveals an intention to employ the word "phenomenon" as sharply contrasted with and exclusive of reality. It suggests that phenomena are to be considered as mere appearances, mere seemings, mere apparitions. It is thus implied that Reality does not belong — so to speak — to the object of consciousness, even when it is an object of knowledge. But, as has already been said in another connection, the word phenomenon and all kindred words have absolutely no meaning except as implying some particular being *of* which, and some being *to* which, the phenomenon is. And all the more, when this word is sharply contrasted, as mere appearance, with reality, does it forbid our doing away with the concept of reality, or the resolving of all into nothing but phenomena. On the contrary, phenomenon as mere appearance implies real existence with which the contrast of appearance is made.

When, however, the inquiry is started, Where is such reality to be found, and whence does our conception of it originate? we are compelled both by empirical psychology and by the theory of knowledge alike to respond: In knowledge and in knowledge only. And thus we have completed the circle, as it were, and reached again the same ultimate truth. This is the distinguishing characteristic, and mysterious but indubitable fact of all knowing, that it *is* either the envisagement or the sound logical inference of real beings, and of real happenings in the states and relations of these beings.

Not infrequently, however, the localization of the pains of the extreme agnostic is changed the moment he is brought face to face with that ontological inquiry which is, as it were, the other half of the epistemological inquiry. Who, indeed, could be found to deny that some sort of reality is, somehow, knowable, — or, rather, is actually known, whenever and however there is knowledge at all? But this consideration is almost certain to shift the point of view on which sceptical inquiry bears most heavily. Now the inquiry takes the following form: "What is reality"? or, rather, What are we to understand by "being real"? In the discussion of such an inquiry as this it is of the utmost importance to understand the nature of the inquiry, and that from the very moment when the inquiry is first proposed. It is to be assumed that the question asked is of such a nature that it can, at least, be understood as a question and intelligently discussed. All ontological inquiry must therefore concern itself with reality as known, or knowable, and so as capable of being brought under terms of sense-perception, of self-consciousness, memory, imagination, thought, feeling, will, and character, — or under some of all the other terms which it is necessary to use in order to define the sphere of the known and the knowable. From another point of view, then, we are compelled to say that to inquire what either

things or minds really are, as "pure beings," "things-in-themselves," or "beings *per se*," is not a genuine ontological inquiry. To raise such an inquiry is to attempt the absurd and irrational in the very name of the highest reason itself.

It would, then, be far better and safer for metaphysics to adopt a more concrete, intelligible form of stating the ontological problem. What are the assumptions and primary forms of representation and conception under which we know all things and all minds really to be? Or, again, What is it really to be, as all things and all minds are known to be?

But even after the problem of general metaphysics has been stated in an intelligible manner, its answer is by no means an easy affair. For metaphysical discussion is often embarrassed and confused in several ways unnecessarily. Among these is the vain and irrational attempt to go on forever analyzing and defining. Analysis and definition must of course reach impassable limits and come to an end somewhere. If, then, we analyze the conception of Reality, as such reality is known in sense-perception and in self-consciousness, into its constituent subordinate conceptions (the "categories") we cannot analyze or explain these *residua* of all analysis still further. At this limit of analysis, we can only appeal to immediate experience for a knowledge of what is meant by the terms which stand for such conceptions. To attempt to define or explain further would be to attempt to reduce that which is simplest of all to that which is more complex. But to refuse to say that we *know* what these terms mean is to assert that we know what is most complex, but do not know what is simpler and necessary to know in order to know the complex.

Metaphysical discussion is often further embarrassed by the foolish assumption that nothing can be certainly known unless it be reached as the result of a conscious syllogistic process. It is often also assumed that the more complicated and subtle this process is, the more worthy of assured con-

viction attaching to it is the final conclusion. But in the growth of knowledge, although intellection and its activity of inference and interpretation enter into all knowledge, — even into that which we consider most “immediate,” — the certainty of inferential knowledges is always dependently connected with a superior certainty for some of our immediate knowledges. And — to consider the same order in dependence from the ontological side — all inferred realities (such, for example, as the atoms of modern physics) depend, for their being known, upon envisaged realities.

That analysis and discussion of the general conception of Reality as known and knowable, which metaphysics implies, yields the following particulars: *Every real being is known as a self-active subject of states, standing in manifold relations to other beings, and maintaining its right to be called real by acting and being acted upon, — only, however, in obedience to certain laws (or uniform modes of its behavior as such a being and no other).*

Undoubtedly, in such a sentence as the foregoing, several unresolvable conceptions are mixed up with figures of speech that both call for and admit of further interpretation. Among such conceptions, or categories, are those indicated by the words a “subject” of states, “self-activity,” “relation” (“in which” the being is popularly said “to stand”), etc. Some sort of continuance or permanence in “time,” and “change,” whether of place (hence “space”) or of states, are also implied. If, however, the meaning of the word “states,” as applied to the being which is said to be their “subject” or to “have them” or to “change them,” be demanded, it is found that the same transaction in reality is implied as that which may be described by “modes of behavior,” or “forms of self-activity” and of “being influenced by” other beings; while words like “law” (which is said to be “obeyed”) and “uniformity” (which is said to be discerned in the “behavior”) when one tries to comprehend them, introduce us still fur-

ther to the profound mysteries of all reality. These mysteries science may try to set forth, but certainly does not solve, when it talks about the "nature" or "kind" of being which any particular concrete reality is supposed to have. For example, the realities called atoms are divisible into some seventy kinds,—each kind with its own nature, according to its supposed uniform modes of behavior. But any definite conception of such a nature as "belonging to" any being, and so as delimiting its being and making it such a kind of being and no other, depends upon our experience with its "modes of behavior." Thus are we brought around to the same point in the circle again: uniformity, or recurrent similar modes of the behavior of any being, suggests and proves to the mind a permanent nature of that being. But what we mean by ascribing a nature to any being is found only in the attempt to summarize the reasons for its known or possible modes of behavior. Why, for example, do oxygen atoms behave as they do, while hydrogen and nitrogen atoms behave so differently under similar circumstances? Answer: Because it is their *nature* to. But what is meant by their "nature," in which the reasons for their modes of behavior are found? Answer: So, as a matter of fact, do these beings *actually* behave.

Furthermore, any analysis of the conception of "law," without which it is impossible to tell what is meant by the reality ascribed to things and to minds as known, shows that this conception is, in part, the result of the same experience as that from which the conception of a nature for things and for minds is framed. The so-called law, or laws, of the being of each reality are in part interior to it; they are not something imposed "upon," or set "over" and "above," the beings which obey the laws. Obedience to any law implies a uniformity in the modes of behavior which has its source in the very being itself. This, then, is really the same conception, based upon the same experience, as that which we have

already found to be covered by the word nature. Law, however, always implies relations of one being to other beings; it also implies different modes of behavior under different relations to differing kinds of beings. On the other hand, in varying its modes of behavior according to its varying relations to the variant kinds of beings, every being must remain true to its own nature; otherwise it loses its own peculiar claim really to be. It must, that is to say, in all that it does, *both* have respect to what those other beings are doing in relation to which it stands, *and also* have respect to what it is itself essentially. Law reigns only where there is both self-respect and respect for other beings; and this is just as true of things as it is of minds.

Now, finally, it is absolutely impossible to tell what is meant by all this, as corresponding to anything that takes place in reality, without introducing the idea of *purposiveness*; or what we have elsewhere¹ called, in a confessedly figurative way, the "immanent idea" which belongs to the very being of every thing, and without which it cannot be known to be real, or even conceived of as real.

In general, therefore, it may now be claimed that every assumption and subordinate conception which metaphysics finds by its analysis to be necessary to all reality, belongs most obviously and incontestably to that particular real being which is called the mind. Indeed, if this were the place for such a contention it could be shown that all these metaphysical assumptions and conceptions are quite devoid of meaning except as such meaning is gathered from the known reality of mind. To be, to stand in relation, to be self-active, to act upon other being, to obey law, to be a cause, to be a permanent subject of states, to be the same to-day as yesterday, to be identical, to be one, — all these, and all similar conceptions, together with the proofs that they are valid for real beings, are affirmed of physical realities (projected into

¹ See "Introduction to Philosophy," p. 247 f.

them) only on a basis of self-knowledge envisaging and inferring the reality of mind. Without psychological insight and philosophical training, such terms, or their equivalents, are meaningless in physics. And because writers on physics do not in general have this insight and this training, in spite of their utmost endeavors to treat physics as an empirical science without metaphysics, they flounder and blunder and contradict themselves hopelessly whenever they touch upon fundamental matters. (Let any one who does not believe this statement read again the best treatises on physics, and critically examine their so-called axioms, their definitions, and their so-called self-evident propositions.)

For the detailed proof of the foregoing statements the subsequent chapters must be held responsible, so far as responsibility can be discharged in a work of such limited character. Those particular conclusions of empirical psychology are now to be examined, in which are found indubitably implicated the reality of the mind. But it is the reality of mind as concrete and as known by mind, and no so-called pure being or being *per se* of mind, which is to be expounded and vindicated. For the pure being or being *per se* of mind we care nothing, — care no more for it than for the pure nothing or pure nonsense which it is. Once and for all, let it be tossed over into the “death-kingdom” of meaningless abstractions. And why should any one feel that *real souls* have suffered thereby the slightest loss?

The peculiarly close relation between psychology as the science which describes and explains the phenomena of consciousness and the philosophy of mind is enforced, in a most impressive way, by every attempt to answer the question now before us. That question has been stated as follows: May I affirm — and in what sense, if at all, may I affirm — the known reality of mind? But plainly such a question as this must be taken at once to experience; and to a form of

experience which it is the appointed task of psychology to treat scientifically, however difficult it may find the accomplishment of such a task. But it is also the right and the obligation of the philosophy of mind to examine the same experience, and to point out its more ultimate implications and interpretation, in accordance with sound views of general metaphysics and of the theory of knowledge.

The experience to which reference has been made may roughly be divided into two kinds: it is, first, experience which I have with myself; and it is, second, experience which I have as indicating the character of the experience of other selves or minds. These two are, however, mutually helpful and supplementary. They are both necessary for the highest and most defensible form of an answer to the question, What is it really to be as all minds are? Experience with myself alone may enable me to affirm something as to what I know myself really to be; but experience with others is needed to enable me to affirm what will approbate itself to others as true regarding the reality that all minds are. Yet, even when stated in this limited way, we still find that, as Tourguénieff has said, "The soul of another is a darksome forest," unless we can light it up with the lamp of self-knowledge. But Goethe is no less right in affirming, "Only in man, man knows himself." There is also sound and broad psychological wisdom in the German couplet, —

"Willst du dich selber erkennen, so sieh wie die Anderen es treiben;
Willst du die Anderen verstehn, blick in dein eigenes Herz."

And now what is that experience with my Self, that phenomenon of consciousness, which may be evoked and studied as a basis for the framing and validating of a conception of the reality of mind? Thorough analysis and penetrating psychological insight present it as by no means the simple affair which is customarily described,—and this both by those who incline to deny, and by those who stoutly affirm, the real being of the mind. Both classes of contestants,

indeed, ordinarily minimize and thin out the phenomenon, in the interests of their diverse philosophical views. Thus experience is reduced to a convenient "simplicity." As has already been seen, one psychologist represents the experience as though it were *simply* the presence in consciousness of some peculiar form of a sensation-content (localized about the head or throat, perhaps, or between the two); and another talks as though it were an envisagement of a *simple* indivisible soul-being, or soul-"stuff," — if one may be pardoned so uncouth a term. Both these views are, however, altogether too "simple" to suit the vast complexity of the phenomenon, — not to say, to serve as an adequate interpretation and explication of the import which properly belongs, for reflective thinking, to the phenomenon.

"*I am*;" "*I was*;" and "*I have meanwhile been*," — all men, on questioning themselves as to their knowledge of what is affirmed in these three propositions, find it impossible to deny their truth. United as respects their import, and explained so as to bring out their full content, they amount to an affirmation of the self-known and incontestable reality of the mind. But the moment we depart from the sphere of this true import, from the sphere covered by the full content of these three propositions, we find ourselves engaged in trying to know the unknowable, to imagine some perfectly unimaginable reality of the mind. On the other hand, to know with full consciousness what is contained in these three propositions is to know one's self really to be, in the fullest meaning of the words.

When, however, the three propositions just laid down are examined with respect to the kind of faculty, as it were, operative in them, as well as with respect to the strength of conviction which attaches itself to them, important differences are brought to view. *I am*, here and now, — but always perceiving or thinking somewhat, feeling somehow, and doing something: to have the experience which must be

described in such terms as this is to be self-conscious; it is to have immediate self-knowledge, in the fullest meaning of these words. *I was*, then and there, — just at that other time and perhaps distant place, — perceiving or thinking somewhat, feeling somehow, and doing something: to have the experience which must be described in such terms as these is to have recognitive memory; it is to have knowledge of self as existent in the past, in the fullest meaning of these words. *I have been* all the meanwhile, — in various places and different portions of time, — perceiving or thinking somewhat, feeling somehow, and doing something: this is a statement which, while it implies consciousness of self here and now, and memory of self in many “thens” and “theres,” rests upon a different basis and has a different kind of conviction attaching itself to its truthfulness from that which belongs to the other two statements. For not only self-consciousness and memory, but logical inference that may with no great difficulty be called into doubt, enter into this third proposition.

In calling attention to, and even emphasizing strongly, the important psychological differences of the three propositions under discussion, it must be remembered that neither self-consciousness nor memory nor inference, in the fullest sense of either of these three words, can take place without involving the other two. One cannot become fully self-conscious without developed memory and intellect; nor remember self-cognitively without development of self-consciousness and inference; nor attain knowledge by reasoning, without self-consciousness and memory. Yet each of the states and functions of mental life expressed by the three propositions “I am,” “I was,” and “I have been,” may emphasize one of these so-called faculties, to the exclusion relatively of the other two.¹

¹ For the truth of this view, as derived from a scientific study of the phenomena, the reader may be referred to the author's “Psychology, Descriptive and Explanatory,” where it is maintained throughout.

For the reality that I know myself here and now to be, so-called self-consciousness is responsible. I know that I am here and now, thus both active and determined as to content of consciousness, — this is a sentence that only expresses in the imperfect and, as it were, temporally “elongated” fashion which the use of words for realities always necessitates, the functioning and the product of immediate self-knowledge. In such an act or state self-feeling, self-activity, and discriminating consciousness have attained the achievement of self-knowledge. And like every achievement of knowledge, this particular one is suffused with the warm conviction of the reality of that which is known. The being which affirms itself to be aware of itself as existent — whether regarded as subject or as object in every act of self-consciousness (the “I” that knows, etc., or the “me” that is known as being, etc.) — is not, however, a far-away or hidden substrate of being. It is just this self-knowing, concrete, and determinate being which is here and now present to itself as self-known. In all such language, and in whatever other language one may choose to employ, one can only inadequately express what the real transaction of self-consciousness is to every Self which has experience of it. To describe the transaction, however, as *mere* state or *mere* activity of a definitive kind, is imperfectly to describe it. Self-knowledge — although it comes as the result of a development — implies a knowing being that knows itself, in an actual and indubitable experience, really to be.

We have no words to express, or power of thought and imagination to conceive, the absurdity involved in the attempt to deny this self-known here-and-now-being of the mind in self-consciousness. If the transaction be regarded on the side of its immediacy and the indubitable character of the conviction which guarantees its validity, no doubt or denial or hesitancy to accept can possibly serve to come between us and it, to impair our confidence in it. It is a

philosophical commonplace, which has become tiresome by repetition and almost obscure in the brightness of its own luminousness, that avowed doubt, denial, and hesitancy, all implicate the self-known reality of mind. No one has ever understood or announced this more clearly than did, hundreds of years ago, the Church-father Augustine. This is no less true since experimental psychology has determined approximately how long (say, from a fraction of a second to six or seven seconds) it takes to come to self-consciousness; no less true, also, in view of the rapid wandering of attention over the field of consciousness, or of those changes in the extent of the "grasp" of consciousness which accompany acts of self-consciousness, as they accompany and make an important part of all phenomena of consciousness.

Nor can the case be argued with this "witness" of self-consciousness, so long as we understand its testimony to be confined simply to the self-known "here-and-now-being" of the Self, and not to be extended to some inferred, much less envisaged, pure being, or being *per se*, of an unknowable substrate. For, unless its guaranty is given in the very being of mind, no argument has any validity or can even have existence as an argument of any kind. The "being" of any argument is only a series of mental processes that succeed each other according to laws of the mind's intellectual procedure; and every conclusion, logically drawn, is bound to its premises only by the living, combining activity of conscious mind. Except as it is assumed, *I am and have been*, from start to finish in the argument, *the same intellect*, no argument has existence or validity for me. The argument by which we support, as well as that by which we try to controvert, the self-known reality of mind can neither prove nor disprove it; both arguments assume it.

Yet, further, it is only in this warm, full, and ever-convincing consciousness of self-existence that all knowledge of the existence of so-called real things has its source and

secure defence. If I am not really here and now existent, then no object of my knowing can claim reality, as the to me here-and-now-known object that it is. If it were possible to regard the object-Self as *mere* phenomenon when it is an object of knowledge, it would follow that the object-Thing is known as *mere* phenomenon also. But, as has already been explained repeatedly, to talk of any knowledge as *of* mere phenomena is to talk of that which is absurd and self-contradictory. Indeed, just so long as we cling to the psychological point of view, and regard only "the phenomenon of consciousness as such," we must affirm as *a fortiori* indubitable the known reality (as "here-and-now-being") of the mind. For, psychologically considered, every phenomenon of knowledge emphasizes the highest form of the being, as an active knowing subject, of the mind. On this form of the mind's functioning, with the activities involved (inference, faith, assumption, or belief, reaching reality, — call it what you will), all reality depends. The nature of that metaphysical element which, while it is called in the subject a "belief in" or a "belief with reference to" reality, becomes in the object a "being real," renders it impossible to give the indubitable character for reality which things have any preference over that which is known to belong to mind.

At this point the ontological aspect of all knowledge is again reached. Man as a knowing subject *is* metaphysical in respect of the knowing function. All real objects are given to him as being real in the form of objects of his knowledge. In general, knowledge and reality are correlates, but certainly no less truly when the objects are minds than when they are things. And if we try to tear out of the phenomenon of knowledge the ontological postulate (or act of belief in reality) which is of its very essence as *knowledge*, we do not lose the real being of our own minds simply, but we lose all being and all knowledge at once. Agnosticism here pushes the explanation of the psychic fact to an

extreme which does away with its essential quality and essential outcome altogether; and in losing these, the whole world of reality falls in one common wreck.

But the act of self-consciousness, so far as it may be considered apart from memory, implicates and guarantees only the "here-and-now-being" which I know I really am. "*I was*" is, however, a proposition which is made with scarcely less confidence and certainly with no less frequency than the proposition "*I am.*" In its most general form this statement is, as to both time and place, vague and indefinite. In this its general form it is likewise most impotent to arouse and confirm a conviction of the reality of mind. But this conviction is experienced and implied in every clear and contentful act of recognitive memory. For example: "I was, on July — th of '92, at one and a half o'clock of the afternoon, upon the top of Asama-yama, in company with A. B. and others, in the midst of a cloud that obscured the surrounding landscape but did not hide the crater, feeling very sore and weary with lying most of the night before on the floor of a tea-house, and with having ridden from four to eleven of that morning on the wooden saddle of a Japanese pack-horse, and having thereafter climbed the volcano's cone; yet greatly exhilarated by the scene, conversing upon such topics, etc." *I was*, there and then, thus consciously active and determined in content of consciousness; it was *I* that was there; and I *know* all this beyond the possibility of doubt.

On making, however, a careful psychological analysis of such an act of memory, or rather such a series of acts of remembering, as the foregoing, it is found that the different "moments" of the complex resultant, the different features of the total memory-picture, have a somewhat different origin and differing degrees of validity. That it was indeed the "year '92," on the "—th day of the month July," and that the hours were "one and a half o'clock of the afternoon," "four of the

morning," etc., I may be ready to receive evidence. The first date may be *proved* correct by resort to a diary; the second and third in the same way, or by some more definitive act of recollection, such as that of taking out a watch when about to mount the pack-horse, and again when on the point of climbing the crater's cone, or already on its top. For the name of the mountain and of the village from which the ascent was made, resort may be had to the guide-book which was in use on the occasion itself. My own perceptions, feelings, and thoughts, on the other hand, even if the memory of them must be refreshed by reference to some written record, are far more likely to spring up with spontaneous freshness as a necessary part of the memory-picture itself. They indeed constitute the very essential content of the process of memory so-called.

On further reflective analysis of this act of memory, and of the knowledge which it is and implicates, it may easily be discovered that the originals which it represents were, at the time of their occurrence, quite widely different activities of the mind. For my original knowledge of the numbers of the year, the day of the month, and hour of the day, I was dependent chiefly on some kind of evidence, — diary, watch, testimony of companions, or remoter calculation of probabilities (itself dependent upon a variety of more or less doubtful memories). For the name of the mountain and of the village where the ascent began, the guide-book was at the time consulted, or the testimony of others taken. But for my own perceptions, feelings, and thoughts there *was* originally the same evidence which I have for all *present* perceptions, feelings, and thoughts cognized as such; there was, that is to say, the immediate and incontestable evidence of self-consciousness. In general, it may be said, though not with perfect accuracy, that *the knowledge of memory follows the order and laws of the knowledge of that which is remembered*. Was the original knowledge largely or chiefly inferential, and so capable of having its grounds called in question and subjected to discus-

sion? Then the memory-knowledge is also considered a fit subject for discussion; it too may be called upon to display the grounds upon which it reposes. But was the original knowledge, so-called "immediate knowledge," whether of things or of self? Then for the memory-knowledge there can be no grounds superior to those which are to be found in the very nature of the memory-knowledge itself.

Still further, however, in the psychological description and explanation of the phenomenon of memory, it is important to notice that the very nature of the complete memory-picture (or, to speak more accurately, the precise determination of the psychic processes of recollection) is, to a certain large extent, itself subject to modification on grounds of inference. Suppose—to recur to the example just given—that I am asked, "How do you know that you were on the top of Asamayama at precisely one and a half o'clock of the afternoon?" the reply might be: "Because I remember looking at my watch and noting the hour immediately upon arrival." But here one of my companions might say: "I remember distinctly that you looked at your watch and announced this very hour when, as yet, we were only half-way up the cone." "And, besides," he might go on to argue, "it is very unlikely that one would expose a watch which one valued to the fumes of sulphur," etc. On hearing this contradictory statement, based upon memory equally immediate with my own, and the argument urged in its support, I might reasonably be induced to revise my own memory-picture; I might actually find it now modified, or so obscured that my original confidence in it was partly gone. Something similar, though scarcely so likely to prove effective, might also occur with reference to the more accurate recall of the obscuring cloud, the time of its appearance, its extent, etc. That, however, I did not feel sore and weary exceedingly, did not think the crater with its horrible rumblings and occasional outburst of flame impressive, did not experience a high degree of æsthetical enjoyment, it would be quite useless, if not absurd,

for any one else to call upon his memory or adduce argument to prove. In general, then, *the clear and vivid memory-knowledge of what was given originally to knowledge by self-consciousness, psychologically considered, as respects the indubitable content of reality known, approaches the original knowledge of self-consciousness itself.*

In the foregoing sentence the word "approaches" was used; and this word was carefully chosen. For the psychology of memory, when its data are extended so as to cover the various faults of memory, — its ordinary mistakes, lapses, pathological forms, liabilities to confusion of the two leading kinds of representation, so that what is really only imagined gets itself recollected, — shows that few or none of the statements detailing any concrete case of memory can vindicate themselves as absolutely certain. Even one's own feelings and thoughts *might* not only get displaced in respect of the exact time assigned to them in the past stream of consciousness, but might also get assigned to that stream, more or less definitely, as in its past, without ever having actually occurred in it. Doubtless the degrees and shadings of our lower affective phenomena, the clearness, cogency, and order of our ratiocinative processes, the elevation and purity of our æsthetical, ethical, and religious sentiments, have been in many cases actually far different from what we now remember them to be.

But after making all possible admissions to which a candid and thorough examination of the facts of empirical psychology calls attention, the basis on which the philosophy of mind places the knowledge of one's past reality is not destroyed or even impaired. This reality covers just so much as is affirmed of the mind whenever I say "I was" with reference to some concrete and definite experience in the past. Such knowledge is knowledge still; the reality of the object of knowledge is implicated in the act of memory still. This reality is not indeed, the "here-and-now-being" of mind as known by mind in the developed act of self-con-

sciousness; it is the "then-and-there-being" of mind as representatively known by mind in the developed act of recognitive memory. But the certainty of conviction attaching itself to the affirmation is the highest possible that can be given to any object of memory-knowledge.

It is impossible to put the proposal to prove or to disprove the validity of recognitive memory in general into any terms that do not assume the whole question, and so evince the absurdity of all opposition to the accepted view. Proof itself cannot proceed a single step without assuming the validity of the act of memory. For unless memory could be trusted to carry, as it were, the meaning of the premises and the meaning of the conclusion, not only would no valid inferences be possible, but the very conception of all validity to inference would be destroyed. Moreover, that synthetic activity of judging which the drawing of the conclusion in every instance involves is itself dependent, both for its character and for its validity, upon the assumed trustworthiness of memory. Every inference must involve a conclusion *from* some judgment *to* some other judgment. But how is one to know *what* judgment to conclude without memory of the grounds which determine this question of "what?" How is one to conclude, with the rational conviction of truth attaching itself to the particular character of the conclusion, without memory of the point of starting, and of the middle term through which the process moved? How can argument be tested without such memory as makes it possible to repeat the progress of thought from the same grounds to the same conclusion,—the "review" of the process of ratiocination for purposes of "verification"?

Now, it is true that the blind leap to a conclusion which fuses with perception¹ and guides the display of "tact" and skill, in a nearly or quite unconscious way, does not seem to involve the verifications of recognitive memory. The form of

¹ Comp. "Psychology, Descriptive and Explanatory," pp. 318 ff.

inference sometimes called "instinctive" is undoubtedly largely an unconsciously determined movement of the mechanism of ideas that does not necessarily involve knowledge with its correlate of reality. It is not, however, of such so-called inference that we are now speaking; but neither is it of a merely mechanical movement of the ideas that we are speaking under the term recognitive memory. The consciousness of a connection of one judgment with other judgment as its reason, or ground, is a psychic fact which must be recognized as highly distinctive of the work of human intellect. It is upon this consciousness that inferential knowledge, with all the fair fabric of science and of the truths of philosophy, reposes. But the validity of this consciousness itself depends upon the validity of recognitive memory; it can never be employed either to prove or to disprove the trustworthiness of such memory.

Plainly, too, when we speak of improving memory, clarifying it, and correcting poor memory by good memory, or one man's memory by that of another man, the appeal in the last resort must be taken to this same mysterious and ultimate source of authority,—namely, to the knowledge of the past by recognitive memory. The moment, however, that we agree to call the memory-function by the term knowledge, its ontological significance and guaranty is established,—as was the case with the immediate knowledge of self-consciousness. Whether the particulars of any concrete act of memory—and only with some degree of particularity and concreteness can I actualize my "being-then-and-there," as given in memory—be more or less defensible as particulars, the fact that "*I was*," and that this *I* that now remember is the same *I* that was, must be regarded as indisputable. It is indisputable, not because it is given as a matter of proof which may be successfully maintained by syllogistic processes against other contradictory arguments; but it is indisputable because to assume and to implicate the past reality of the

Ego is of the very essence of memory as a form of knowledge, and because memory cannot even be called in question without this same assumption.

How the unity and identity of mind are concerned in the fact of knowledge by memory, and what sort of unity and identity this fact concerns, we shall inquire later on. What now interests us is simply this, that the "then-and-there" reality of mind is indisputably implied in all recognitive memory. To remember recognitively *is* to have knowledge of the being in the past of the subject of the act of memory. This is the truth which is really brought out by the effort to find an answer to such absurd questions as the following: How could a being that was not actually existent in the past know itself as existent in that past? How could a being with no past know by memory some other being than itself as existent in its own past? For what is memory, when it reaches that development which we call knowledge, but just this, — the knowledge of my own experience as involving my "then-and-there-being;" just as the immediate knowledge of Self in the act of self-consciousness is the knowledge of my "here-and-now-being"?

But if scepticism and agnosticism are to be pushed to the utmost limit on the epistemological side, and the condition of uncertainty or doubt or denial regarding all memory-knowledge is to be maintained, then it is not the past reality of mind alone which drops down into the dark abyss of nescience; it is not the reality of my mind which first vanishes into mere phenomenon of memory: — it is all reality. But it is first and most irrecoverably the reality of things. Except as they hang dependent on memory, with its faith and knowledge, sun, moon, and stars; birds, beasts, and fishes; the "wife, children, and all humanity past" (the beings M. Flournoy is so desirous to save), — all are engulfed in that bottomless pit of non-existence which ever follows close behind the ever present being affirmed by self-consciousness, and swallows

them all as fast as they come forth out of the womb of nothing on the way to nothing as their tomb. For nothing else has its "then-and-there-being" guaranteed as implicated inseparably in the very nature of recognitive memory, in the same manner as the past self-known being of the rememberer's own mind.

But the proposition "*I have been*," during the time between the present "I-am" and the remembered "I-was," reposes on yet other and different grounds. Psychologically considered, this proposition rests upon grounds of consciousness belonging to a quite different order from the phenomena in which either self-consciousness or recognitive memory are chiefly emphasized. What do I mean when I say, "I have been in existence these twenty years since the time when, as I now remember, I had such an experience"? And how do I verify, or on what grounds believe, such a statement as this? Epistemologically and ontologically considered, the import and the proof of existence continuously all the way through, as it were, from the remembered "then-and-there-being" to the consciously known "here-and-now-being" require a quite different order of discussion from that followed hitherto.

On beginning an examination of the meaning and validity of this proposition — "*I have been*," since ever "*I was*," up till the moment covered in the knowledge expressed by saying, "*I am*" — from the point of view of empirical psychology, it is found to involve a large development of the power of reflective thinking. Faithfully described, indeed, the phenomenon of consciousness which the proposition states plainly includes a strong and quite irresistible conviction. Let the adult of average intelligence, but without special cultivation in the analysis of self-consciousness or special acquaintance with the problems of philosophy, be asked, Have you then really existed all the time since the first thing which you remember? and he will be likely to greet the inquiry with an incred-

ulous smile or a vacant stare. This is not so much because he cannot comprehend the meaning of the question as because he cannot comprehend how the actual fact can be called in question at all. But what, from the point of view of psychology, is this actual fact? It is simply a mode of mental procedure, a certain determinate flow in the stream of consciousness, involving complex activities and the mysterious accompaniment of rational convictions. As "phenomenon," it cannot be faithfully described without noting *all* these activities; its description must include, besides the concrete form of the activities, the accompaniment of convictions also. Or, perhaps, we may be forced into consent to take the convictions especially into account as among the most important and permanent of the activities.

What, then, is it to which consciousness actually gives birth that is expressed by the proposition, "I have been"? Plainly,—one of the most obvious and important of the "moments" of this complex psychic fact implies the possibility of an indefinite number and variety of acts of recognitive memory. On this point, again, let consciousness be consulted. Your plain man when asked, What do you mean by saying, "I have been"? will almost certainly proceed to answer, "Why, I remember that *I was!*" and this over and over again. "Once I was, years ago, in such a place, under such circumstances, thinking, feeling, and planning thus and so; again, even longer ago, I was elsewhere, under different circumstances, with markedly different thoughts, feelings, and plans; and yet again, much more recently, or yesterday, or but an hour or two gone by. *I was, the same I* that tell you of it, as I distinctly remember, existent at these many points of time; and I am sure I could recall yet many other occasions when I should distinctly remember that I was." This potentiality of recognitive memory, and the consciousness of it, is then a prime "moment" in that determinate flow of mental life which warrants the conclusion, "I have been."

Just as evident is it, however, that no such proposition is warrantable upon the basis solely of acts of recognitive memory; it is not upon the potentiality of memory alone that the knowledge of the mind's continued existence between any particular "I was" and the present "I am" can rely. It is only a small part of any entire stretch of objective time which clear recognitive memory, with its knowledge of the Ego's past existence, can hope to cover. Of the many states of most undoubted self-knowledge, with its full conviction of the reality of the knowing Self, which actually happened in the past, only an insignificant percentage, as it were, can ever be recalled. And if all of these states could be recalled, great gaps in the continuity of existence which the proposition "I have been" is designed to cover, would still remain. Of these gaps some were originally filled by such states of intense absorption in the life of the senses, or in practical activities with their more purely objective references, as contained few and weak elements of self-knowledge. Other gaps were originally filled with those lower and more obscure conditions of mental representation, which, if they constituted the entire outcome of mental development, would never give rise to any rational inquiry concerning the reality of mind. Indeed, if these states, sensuously determined and capable of more nearly complete description, merely content-wise, were, as some psychologists claim, the sum total of the stream of consciousness, as well might one expect crows or dogs to enter upon debate concerning the reality of their minds. Still other gaps were originally just this—*gaps*; they were not filled, so far as can be discovered, with any of even the lower forms of mentality. Such were the states of deep and dreamless sleep, or the times when the mind lost consciousness, and swooned quite away. Now, the bridge over all these gaps can never—so far as we are permitted to make assertions on the basis of known psychic facts—be constituted by successive acts of recognitive memory. Nor is it

necessary in this connection to do more than call attention to the fact that the stream to be bridged itself widens ceaselessly as the successive acts of memory themselves go on. All these very acts of memory are "moments" in the onflowing stream.

It is the faculty of *thought*, distinctively, with those phases of metaphysical assumption (or ontological leaps) which accompany its functions, that bridges over all gaps in the knowledge, by self-consciousness and recognitive memory, of the reality of our own minds. Here the manner of its procedure is in no respect different from that which it follows in bridging over the gaps that lie between every real being, as known now to be, and the same real being as remembered to have been. Indeed, without relying upon the process of reflective thinking, with its accompaniment of ontological postulates and beliefs warm with conviction, we cannot speak of any continuous real being whatever, or even of any reality as belonging to change and to motion in the world of external objects. If, for example, I perceive what *appears* to be the same being (that is, the sufficiently similar being) *X* now at the point *A*, and then at the point *B*, and still later at the point *C*, in the line *A* — *B* — *C*, I may say: "I know that the same *X* *has been* in motion all the way from *A* to *C*." Although I now only perceive it at *C*, and only remember that I perceived it at *B* and at *A*, I nevertheless confidently affirm that it, as continuously and really existent, has passed over the entire line from *A* to *C*.

By a similar conclusion, which has its basis not only in perception and memory, but also in inference, the astronomer directs his telescope to another and advanced point along the line of movement followed by some heavenly body; and when he has the phenomenally similar sensation of light, he affirms his knowledge of the continuously same existence. Nor does he doubt the reality of the being *inferred* to have been in the several positions between "this" and "that" any more than the reality of the being *perceived* "now" and "here,"

or of the being definitely *remembered* as "then" and "there." With the same persuasion of knowledge does the microscopist examine his specimens of animal and plant life. This persuasion is not at all shaken when important changes take place in the object known; not even when those changes are of the most startling and transforming character. Indeed, all such knowledge as enters into the theory of development not only admits of, but even seeks and builds itself upon, a similar basis. In spite of changing states, in spite of wonderful and unexpected transformations of character, in spite of gaps that neither immediate knowledge by the senses nor knowledge by memory can overcome, science affirms of everything with which investigation undertakes to deal: "*It* has really been all the way through, from the it-was to the it-is." In brief, without this function of reflective thinking, to supplement perception and memory, *science* is wholly impossible; and without the ontological assumption which goes with it, what is called science, is nothing but the dreamer's well-ordered dream. Nor is it found that the most agnostic of so-called "scientists" are particularly lacking in warmth of conviction when the validity of this ontological postulate, this metaphysical leap, respecting their own alleged knowledge of things is called in question.

If the bearings of this form of thinking, and the meaning of its results, were considered more in detail, it would appear that much of the language of common life and many of the more important terms of science depend upon it. Of the latter class might be mentioned all that scientific talk about "potential" energy, "latent" states, "tendencies," "strains," etc., with which physics entertains and instructs us; and as well the brilliant pictures which chemistry forms of the intramolecular relations of the atoms. But what, pray, would become of the proud science of biological evolution, if its right were denied to bridge over its gaps with thought and imagination? For who can deny that *gaps* are abundant

enough in it? And who can deny that from the known as it "now-is" to whatever "then-was," biological evolution has few stepping-stones in memory? The truth is that this so-called science consists almost wholly in a debatable system of arranging abstract thoughts. Indeed, it would be strictly justifiable if it were called to account before the bar of philosophy (however this might be deemed rank heresy in scientific circles) for constructing a "then-was" for the world of material realities out of mythological and imaginary beings. Certainly, as to solid ground in known reality, this science has frail standing indeed compared with that which the plain man finds when he affirms the continuous reality of his own soul's existence.

When, however, the grounds on which our conviction reposes as to the validity of the proposition "I have been" are critically examined, they are found quite different from those on which repose the propositions "I am" and "I was." They are not only different but inferior. That *I am*, the very nature of the act of developed self-consciousness does not permit me to doubt; that *I was* is fully guaranteed in the act of recognitive memory. But that *I have been*, when I cannot remember that I was, admits of being called in question; while to affirm that I have really been, *as mind*, during those gaps when no actual function of mind-life, no psychoses to be attributed to the subject, actually occurred, — this may turn out not only an unwarrantable but a meaningless proposition. Yet even thus the basis on which the reality of mind rests, as affirmed by the proposition *I have been*, is in certain important respects superior to any which can be placed beneath the reality of any material thing.

That "I have been," between two periods when I remember that "I was," is an inference which reaches a high degree of probability, but of probability only. It is conceivable that I may *not* all the while have been, in any intelligible meaning of the words "to be," as applied to the existence of mind. In

deed, it is impossible to tell in what meaning of the words, except as indicating a mere possibility of the renewal of actual being (a possibility which, *when it is actualized as renewal*, we regard as a certainty instead of a mere possibility), I can affirm that *I have been* during those gaps when, according to the hypothesis, no mental states occurred. It was the impression made by this uncertainty which led the Cartesian philosophy to infer that the mind always thinks. It desired to save the reality of mind in this way. But the argument of the Cartesian philosophy saves only the abstract conception of the potentiality of a renewal of true mental existence; and it saves this at the price of a contradiction or disregard of psychic facts. For mind, as for all other beings, *bare* potentiality is not worth saving at any price.

The inferred continuous reality of mind, however, has in one respect at least the preference over any similar reality that can be claimed for material things. It is conceivable — to recur to the illustration already employed (p. 140) — that the physical being perceived as *X* at the end of any line (*C*), although it appear exactly similar to the beings remembered at the points *B* and *A* in the same line, and although it appear at the right time to simulate the movement of one and the same being from *A* through *B* to *C*, should still *not* be in reality the same with the remembered beings. The being which appeared, as remembered at *B*, however similar in appearance to *X*, may have been in reality some *Y*; and the being which appeared at *A* may have really been yet another being, — namely, some *Z*. Indeed, it is conceivable that however continuously one may seem to observe the movement of the same thing along the entire line *AC*, in reality the fact may have been that an indefinite number of sufficiently similar beings were successively perceived at the various observed points along the line. Series of phenomena of this sort are not only conceivable, they may actually be produced without very intricate optical appa-

ratus. The same conclusion holds true of the continuous reality of any one thing when not in motion, — and this, however closely it is watched to see that no substitution of one similar reality for another takes place. Nothing, indeed, but a network of highly probable conclusions, which adjust the ontological explanation in the firmest and most appropriate manner to our total experience, prevents us from regarding the whole world of things as momentarily quenched and then replaced by a similar world of actually new realities.

But concerning the reality of the actually remembered self, such a supposition as the foregoing is not simply to a high degree improbable, it is even absolutely inconceivable. For this is precisely what the act of recognitive memory both means and necessarily implicates, — “I was; and I that was am the same real I that now am.” In the case both of things and of minds, however, the guaranty for the “have-been” which lies between the remembered “was” and the self-conscious “am-now,” can be found only in that confidence which is attached to the derived results of much reflective thinking. But for certain points in the past life of the Ego, — namely, for those in whose behalf recognitive memory can be evoked, — we have the guaranty furnished by an absolute impossibility of thinking the contrary; and this belongs to the reality of mind, as it does not to the reality of things. “I have been,” — of this it is impossible that I should doubt, so long as I do not extend the “have-been” to cover a larger area than that which can be covered by the indubitable memory “I was.”

Who, however, that does not enjoy metaphysical quibbling for its own sake will refuse to extend the claim of continuous real existence for the mind so as to cover all those forgotten, and perhaps never again to be remembered, states of which there actually was self-consciousness in the past of mental development? In general, the term knowledge cannot be denied to conclusions, with respect both to things and to

minds, that rest upon essentially the same basis as that which establishes the continuity in reality of beings that only occasionally, as it were, are immediately known to be or remembered to have been. The whole body of physical science consists of just such conclusions. An agnosticism which we do not think of applying to material things, we have no right to attempt to apply to our own minds.

What, however, shall be said of those gaps in the continuity of mental existence where there is not only no memory or well-grounded inference of actual psychic facts, but where there really-were no such facts existent to be subsequently remembered or inferred? The more complete answer to this question must be postponed. The answer which must be given, however, is briefly this: Where there are no mental states, no psychic functions actually exercised, no really existent content of consciousness, there we cannot speak of the real existence of mind. But does this mean that when one falls into a deep and dreamless sleep, or swoons away, or because of a blow or of disease sinks into complete unconsciousness, one ceases really to be? Certainly, if the words "real being" are to refer to the self-known reality of mind. *As mind*, I exist no longer if I cease from all the functions and activities of mind. For *the reality of mental life consists of actual mentality; it is the really being self-conscious, self-active, knowing, remembering, and thinking, as mind*. Bare abstract potentiality of future mentality is — we repeat — no substitute for, or even mental representative of, the real being of the mind.

The truth may be brought out by a counter question. Suppose the dreamless sleep to be continued forever, the unconsciousness caused by disease or a blow to be never followed by return to consciousness: on what ground, and with what conceivable meaning, could the continued existence of *that* mind be affirmed? Only the actual fact of a resumption of self-consciousness, and the actual connection of the renewed

mental life with the past mental life by acts of recognitive memory, can warrant the inference "I have been from the beginning until now." The "potentiality" with which as the fruit of reflective thinking we strive to satisfy reason in its attempt to account for what lies between the present "I-am" and the past "I-was," is the negation of reality instead of its equivalent.

It is in this respect, then, that the conception of a continuous reality for the mind is contrasted with the conception of a continuous reality for things. For — to recur again to the same example — if I know that the thing *X*, which I now perceive at the point *C*, is the same thing as that which I remember perceiving at the point *B*, and previous to that at the point *A*, then I cannot think the possibility of its not having been in existence continuously at every point of the line *A* — *C*, or of some other line between *A* and *C*. If *X* is a composite being, it may indeed be taken apart and conveyed piecemeal, as it were, from *A* to *C*; or it may be removed by some circuitous and unseen path and then brought to *C*; while meantime a really different but seemingly like body obviously moves along the line *A* — *C*.

A similar result of reflective thinking is often stated by the science of physics, in a more restricted way. "A body cannot move from *A* to *C*, along the line *A* — *C* without passing through every point successively between *A* and *C*." [That this proposition, with whatever of ontological postulates it involves, is accepted as true for all things, there can be no doubt. The interesting metaphysical discussion of the grounds for our confidence in it cannot occupy us at the present time.] If, however, the effort be made to carry over this analogy to the existence of the mind in time, it breaks down completely. For on the one hand — as has already been said — no meaning can be discovered for the proposition that the real existence of the mind, as mind, must be affirmed as continuing (to speak figuratively) at such points

along the line *A*———*C* as are marked by no *mental* content or forms of *mental* activity. On the other hand, if the mind knows itself to be existent now, and remembers itself as existent at any time in the past (that is, — to employ again the same figure of speech, — maintains its reality, by the forms of its functioning, at both *C* and *A*), then it makes no difference with the fact and with the character of its present or its past reality, whether it has been non-existent, or not, at an indefinite number of times between.

Finally, in maintaining the right of the mind to regard itself as real, both here and now, and also then and there, we have indirectly decided the question as to what is the character of the mind's reality. The further expansion of the truth as to the nature of mind, as self-known and so known to be real, is indeed the main theme of the subsequent chapters. But the results of the previous discussion may now fitly be summarized, at least in a preliminary way: *The peculiar, the only intelligible and indubitable reality which belongs to Mind is its being for itself, by actual functioning of self-consciousness, of recognitive memory, and of thought.* Its real being is just this "for-self-being" (*Für-sich-seyn*). Every mind, by living processes, perpetually constitutes its own being, and knows itself as being real. To be self-conscious, to remember that we were self-conscious, and to think of the Self as having, actually or possibly, been self-conscious, — this is really to be, as minds are. And no other being is real mental being. The bare potentiality of such being, as projected by thought backward or forward in time, *is not* real mental being; on the contrary, it is in contrast with, it is the negation of, the real being of the mind.

CHAPTER V

THE CONSCIOUSNESS OF IDENTITY, AND SO-CALLED DOUBLE CONSCIOUSNESS

THAT I, who now exist, am the *same* as the I that formerly was, in no matter how many so ever of my past remembered or inferred experiences, is a proposition which men generally maintain with the most intense and indubitable conviction respecting its certainty. Both the meaning of this proposition and the grounds on which the conviction of its certainty reposes have, however, been made subjects of no little debate. Any dispute over its validity is, of course, most intimately connected with the interpretation of its meaning. On the one hand, certain advocates of the so-called "Identity of Mind" argue as though the grasp of human consciousness could by some supreme effort envisage the Self as a "pure" entity, a being *per se*, the self-same and unchangeable subject or ground of the phenomena, through all the well-known changes which actually belong to mental life and to its development. On the other hand, other psychologists insist upon the perpetual flux of consciousness, to such an extent that the very conception of change loses all definite meaning by lack of anything even relatively permanent with which the change itself may be thrown into contrast.

In discussing the nature of that identity which may be affirmed of mind, we shall maintain the points of view that have already been chosen. The *rights* belonging to these points of view must also be conceded and maintained. These

rights are all summed up in this one,—the right to give a rational although speculative, treatment to mental phenomena as they are faithfully described and—however inadequately—explained by empirical psychology. In carrying out this particular discussion, then, something must again be borrowed from general metaphysics. The conception which we now wish to borrow, after it is clarified and freed from internal contradictions by critical treatment, is of course that of “self-sameness,” or “identity.” For, indeed, how can one intelligently discuss the question whether the mind is to be considered self-same, or spoken of as knowing its own identity, unless some definite meaning be first obtained for these very words? Here, too, the results of reflective thinking must be accepted without retracing in detail the processes by which the results have been reached.

It is customary, especially in circles permeated with those prejudices which accompany modern physical science and its pursuit, to insist upon the independent stability and permanency of things as contrasted with the dependency and fluctuations of mind. This contrast is often stated in such a way as seems to imply forgetfulness of the truth that all our knowledge of things is statable only in terms of change. For there is much sound sense in that view of the ancient Greek philosophy which emphasized the changeableness, perpetual flux, and so unreality of all things as in contrast with the eternal and unchangeable character of ideas. Certainly, if we may speak of man as having consciousness of the character and events of the so-called physical world, it is nothing permanent or in any way self-same in this world, which such objective consciousness contains. The important psychological truth is this: It is only of the similar in things that the human mind is immediately and indisputably aware;¹ all conception of the self-same or the identical is an extremely subtle and complex affair, resulting from a large amount

¹ See “Psychology, Descriptive and Explanatory,” pp. 274 f., 293 f., 447 f.

of reflective thinking, and "shot through" with a variety of ontological postulates. In fact, it might be said: By sight we know the *similar*; but it only is by faith that we come to know the *same*. And this is even more indisputably true of things than it is of minds.

To ordinary perception by the senses those things are called the "same," or "identical," whose successive changes of states can be traced with enough of conformity to some idea, or type, of change to serve the practical purposes of identification. In order that we may *re-cognize* things, make use of them, adapt ourselves to their changes, we must not be too scrupulous about insisting upon exact or even nearly exact similarity in their different states. But, on the other hand, if we allow ourselves to be too loose and indefinite in our estimate of the permissible limits of change, we make the serious and often fatal mistake of confounding things that are really quite different in their relations and effects. The child needs, for his safety, the influence of mental conviction that this is indeed the very *same* dog which bit him yesterday; although to-day the brute looks pleasant, and is not, as yesterday, snarling and showing his teeth. His lesson that even those things which appear most like are often not indeed the same comes later. But this lesson is scarcely less important for his safety; and it is even more important for his growth in precise knowledge. In both cases, however, it is only the various groupings of more or less similar and dissimilar attributes of which he receives the testimony of his senses. Thought, with its ceaseless work of ontological postulating, underlays these various groupings with the conception of a something which is permanent and does not change. This "something" — if the somewhat humorous tautology may be permitted — is necessary in order that anything may be indeed a real "Thing," rather than *simply* an appearance to be ascribed as a state to some other thing.

To the uncritical mind, then, it doubtless seems as though

an unchanging "core" of reality belongs to everything. The attributes, the states, the changing modes of behavior of the thing, are thus regarded as added, in a somewhat external fashion, to its essential core. Little critical analysis is needed, however, to show how completely figurative and inapplicable to reality, or to its explanation, are such forms of speech and thought as this. What is demanded, and what is known as actually taking place in satisfaction of the demand, is simply this: Every x (every "Thing" whatsoever), in order to be entitled still to be called x (or the "self-same" thing), must in its changes run only through series such as can be indicated by $x, x^1, x^2, x^3, x^4 \dots x^n$; or, on occasion of its coming into other relations with different beings, the series may be that indicated by $x, x^a, x^b, x^c, x^d \dots x^w$. What is true of x is true of every other thing, — for example of every y and every z . But if any x should happen to break off its proper series of changes, — especially if the rupture be sudden, — and if it should begin to run through the series y^1, y^2, y^3 , etc., or the series z^1, z^2, z^3 , etc.; why, then (begging pardon for the apparent contradiction in language), x would have become y , i. e., x would no longer be x , the self-same thing. That is to say, even to be a "Thing," self-same and real, there must be conformity to law. But here we have come upon the same underlying and unanalyzable conceptions as those which met us in the attempted analysis of the last chapter. *The real identity of anything consists in this, that its self-activity manifests itself, in all its different relations to other things, as conforming to an immanent idea.*

In view of what has just been said, this important truth is apparent; namely, that it is not change itself which is inconsistent with identity. On the contrary, it is the very character of the actual changes observed or inferred which leads either to the affirmation or to the denial of identity. This statement is no less true because it is less popularly obvious concerning the most stable of inorganic, material beings than of organisms,

or even of self-conscious minds. But must not the atomic theory be reckoned with here, — that brilliant metaphysical hypothesis with which the modern sciences of physics and (especially) of chemistry have justified their most sweeping empirical generalizations? Certainly; and it is in the application of this theory to reality that the truth for which we are contending is most forcefully illustrated. The compelling force of the illustration is found in the fact that here, according to the very terms of the hypothesis itself, the atoms are those elements of all material reality, ever self-same, by combination, separation, and recombination of which all the changing states of things are scientifically explained. In precisely what, however, does the real self-sameness or identity of the atoms themselves consist? Certainly, for each of the about seventy different kinds of atoms, considered as permanent *kinds*, it can consist only in conformity to the “nature” of its particular kind. Oxygen atoms can remain oxygen, and nitrogen atoms can remain nitrogen, — and so on, to the end of the entire list of seventy, — *only* if the oxygen atoms continue faithful in behavior, in all the different possible relations, to the laws of their kind; and *only* if the nitrogen atoms in turn abide by the laws of their different kind. But what does all this amount to “in reality”? No answer can be given to this question without recurring to the same conceptions as those which have been seen to characterize our knowledge of the identity of the complex things into which the atoms enter. The meaning of x is x , self-same, and does not become y , *only* if x be governed in its behavior in all relations according to its own appropriate ideas. The metaphysics of our conceptions does not alter whether by x be meant some kind of an atom instead of a stone or a star.

Or let some single atom (some individual representative of the kind called oxygen) be selected and named x ; then, too, let the conditions and the character of our knowledge of it as self-same remain unchanged. Now, to be sure, science

assumes that x has maintained its individuality, as well as its specific character, through incalculable periods of time, and under an infinite variety of most trying circumstances. But it has maintained this only by conformity to the laws which define its own nature, under every variety of changing circumstances. In all its transactions, so indescribably varied, — now in the soil, now in the water, now in the plant, now in the brain of the scientist whose conception of it we are at present holding for true, — x has remained identical, the very type of the permanent amidst all change. But *how* self-same and *how* identical? Again is the mind forced to recognize the truth that only in the *ideal*, as applied for the regulation of the limits of its behavior, can we rest our search for that which admits of no change. Nor, when the exigencies of the metaphysics and the physics of chemistry become heightened by enlarged acquaintance with observed facts, and when Sir William Thompson's, or some other theory of an infinite interior complexity for the individual atom is devised, is the character of our conception of identity changed. No small x , however small (even if we let x stand for some unit in the intra-atomic mechanism), can vindicate its claim to remain one and the same with itself, except upon precisely the same terms as those which belong to the largest of the material masses called x .

But if what has been said is indeed true of the elements of material reality and of those inorganic beings into which they are compounded, it is more obviously true of all organic beings, with their greater rapidity and variety of changes and their capacity for development. Indeed, what is called "remaining the same," in the case of all organic beings, is just this, — *remaining faithful to some immanent idea, while undergoing a great variety of changes in the pursuit, as it were, of this idea.* Thus modern physiology shows how nearly, or quite, every particle of matter in any growing thing may be changed, and yet the total growth is spoken of as remaining the same. Here

the unscientific observer trusts his observation and memory of similar relations in space as a chief guide in the task of identification. Only as he finds the phylloxera, for example, in sufficiently similar relations of space within the substance of his vines, does he credit his eyes with the conclusion that beings so different in aspect at the different stages of their development can really be pronounced the same. If, however, while he has slept, some malicious neighbor substitutes a poor tree for a good one in his garden, he refuses to believe that so different a growth can be the same thing, in spite of the testimony of the senses that the two occupy the same place in space.

When, however, an appeal is taken to the minute and comprehensive observations of modern biological science,—especially as supplemented by the study of micro-organisms under the higher powers of the microscope, by embryology, etc.,—the impression is greatly heightened rather than diminished, how utter is the impossibility of understanding what can be meant by organic beings remaining the self-same, unless the thought be admitted of a control over the limits of change by some immanent idea. This impression is still further heightened the more the import of the theory of development is reflectively considered. For under this theory what is there in reality that does *not* change? Shall, then, all reality be resolved into *mere change*,—into change that is change *in* no real being, or change *of* no real being, according to the unchanging limits of some ideal? To attempt even to state such inquiries as these, in their full import, would carry us quite too far aside from our present line of thought.

We turn now to consider the identity of mind, with the inquiry whether it is different from or inferior to that which thought forces us to ascribe to things. For in the case of things, whether organic or inorganic, composite or elementary, something that does not change, something that is “over” and “above” change, must be postulated for them

all; and yet analysis is unable to discover what this something can possibly be, unless it be the ideas which limit and control the change.

What, then, is the import of that conception of the "Self" as self-same amid all changes of circumstances and even of its own qualities or modes of behavior, which men generally hold; and what are the grounds upon which the conception rests? Plainly, in the first place, there is no intention to deny all possibility of change in the phenomena which are attributed as states to the subject of them all, to the so-called *Ego* or Self. On the contrary, the very existence of the phenomena depends upon the observation of actual change. To keep the soul changeless (whatever one might then try to mean by the word "soul"), even during the briefest processes of self-consciousness or recognitive memory, is quite impossible. Indeed, the actuality of these processes, as considered from the psychological point of view, consists of just this, — they are processes of becoming. No one is ever self-conscious without becoming so. No one ever remembers, with recognition of self, and with even an approach to clearly defined time-consciousness, without passing through that process in which the remembering itself consists. Further, as has already been sufficiently emphasized, the very conception of a Self as identical, or self-same, is a generalization from a vast amount of experience with perpetually changing states. This conception, too, is never actually a statical envisagement, as it were, of some pure unchanging being of a Self; it is the rather always a conscious process implying the activities of thinking, remembering, imagining, and willing, — a "moment" of movement according to intellectual laws, in the perpetually flowing stream of consciousness.

Moreover, the recognized changes in the more prominent and customarily uniform characteristics of any mind — its *individualizing determinations* — may be almost indefinitely great and sudden, without serious impairment, much less

destruction, of the consciousness of identity as based on valid grounds. Thus we frequently hear men saying with conscious pride, "I have totally changed" in this or that respect, since so long ago. These self-recognized changes may have reference to knowledge, to opinions, to faith, to emotions and sentiments, or to the most deeply laid purposes and plans. Indeed, even the popular estimate holds that the mind which does not develop — and development implies change, is change according to some idea — fails so far forth to vindicate its claim to be a real mind, in any worthy way. Even character, and that vague, indefinite background of tendencies which is called inherited disposition or temperament, may greatly alter; and yet the mind affirms itself to be the same individual mind, distinguishing itself from every other (both selves and things) as abidingly, in some sort, one and the same. What is called religious conversion affords many startling instances of such change. The slower alterations that are forced upon all men by the discipline of life, or that are voluntarily effected in accordance with some reversal of underlying purposes and plans, or that naturally follow from passage through the different stages of advancing age, or that arise from markedly different environments, are too familiar to need mention here.

In all these cases there is, to be sure, another way of regarding the matter, which emphasizes the influence of such changes upon the very consciousness of identity itself. With this, too, all are familiar enough; although its highly figurative character, as considered in its relation to the metaphysical problem now under discussion, is seldom sufficiently observed. Men not infrequently speak of themselves, and more frequently they are spoken of by others, as more or less greatly changed. Sometimes it is even said, "He is (or I am) *completely* changed; he is *not at all* the same man that he was." When the more fundamental and obscure bodily feelings are markedly different from those to which consciousness

is accustomed, more or less profound disturbances of the consciousness of identity may take place. Great and especially abrupt changes in the environment — as, for example, when one is landed for the first time in an Oriental country; or when one passes from riches to poverty, or in the reverse direction; or when the accustomed associations with one's fellows are greatly altered — produce different but important disturbances of this consciousness. On “coming to ourselves” from overwhelming and sudden griefs or misfortunes, the world and ourselves may for a long time look far otherwise than has been their wont; things are different, and we are wholly changed.

The bearing of such alterations in the consciousness of identity upon the metaphysical problem, where they become permanent and reach the extreme limits of their effect upon personality, will be considered later on. But in all the more ordinary cases, such as are now under consideration, it should appear at once that *changes heighten rather than diminish the reality and validity of the consciousness of identity properly described and understood*. For this very conscious recognition of the alterations implies a standard of comparison; and this standard of comparison can be no other than the same consciousness of identity which seems temporarily and partially to be confused or impaired. How, indeed, can one be conscious of being changed who is not also conscious of being, in some sort, one and the same being that is self-regarded as the identical subject of the change? This consciousness of being “the subject of change,” — for it is *I*, and *not another*, that am changed — involves the consciousness of identity in such manner that the two cannot be divorced.

As long, then, as I know that it is *I* that am changed, — that this veritable and continuously existent Self *is* really now so differently circumstanced, disposed, and affected from what it remembers itself formerly to have been, — I cannot be said to have lost the consciousness of identity. The con-

consciousness of change involves the knowledge and the conviction that I am, amid all changes of environments and internal states, in some import of the word, "self-same." Indeed, the clearness and comprehensiveness of one's knowledge of the particular changes, and the keenness with which they are felt, measure in no unimportant way the breadth and depth of one's power to identify one's self. And nothing but the complete loss of self-consciousness and recognitive memory, and of the power of reflective thinking as exercised upon a basis of self-consciousness and recognitive memory, can destroy that knowledge of the Self as self-same which is implied in all actual exercise of these so-called faculties.

In view of the statement just made, both the meaning and the grounds of the mind's affirmation of its self-sameness become at once apparent. First, negatively. No form of consciousness furnishes the knowledge, either immediate or inferential, of an unchanging core of existence as belonging to the so-called Self. The consciousness of identity — whatever else it may be or may not be — is no envisagement of an unalterable self-being after the analogy of some dead lump of a material entity, or some atom capable only of being moved into new external relations with other beings, but incapable of variable internal states. And, indeed, has it not been shown that this very analogy is misleading? Such a "lump," such a so-called "atom," would be no self-same existence; such an abstraction would, indeed, have no claim to be existent at all. Nor does the identity which any individual mind knows itself to have, and which is the only self-sameness worthy of being attributed to mind *as mind*, consist in being recognized by some other than its Self as being the same. In announcing this truth we come upon considerations which need to be explained with further detail.

When men say to one another, "You have greatly altered," or, "You are a totally changed man," — they most frequently refer to changes in the bodily condition and states. Such

changes, of course, have only an indirect bearing upon the self-sameness of mind, in so far as they are indicative of past or present alterations in mental traits. Frequently, however, we note with joy or sadness the great and abrupt alterations of which we get indication, in the mental disposition, tendencies, and actual forms of mental functioning of our acquaintances and friends. Again, we trace with a genuine psychological interest, and as a fruitful psychological study, the alterations of mentality which biographies, dramas, and novels set forth. It is only, however, when the proofs of actual self-consciousness, and of recognitive memory in such form as to bring the different mental epochs and activities into a sort of continuity of development, and of reflective thinking with its achievement of a conception of Self, seem to be permanently lacking, that an actual loss of so-called personal identity is deplored. For now, as the significant saying recurs, "This person has lost his mind." Self-same he no longer is, for he is no longer the same to himself; he no longer is self-conscious, or remembers, or thinks himself into an actual and yet conceptual "for-self-being."

But, second, the positive import of such negative declarations as the foregoing is not particularly obscure. From the negative conclusion it follows positively that there is no other consciousness of identity than such as is implicated in actual self-consciousness and memory. No conception of any import whatever for the words, "consciousness of identity" can be gained which is not gained by subjecting these activities of the mind to a process of reflective thinking. Therefore — positively and indubitably — *to be self-conscious and to remember recognitively is to be conscious of being identical and self-same.* So that in order to tell what is meant by being the same mind (as a mind) that formerly was, and was yet before that, and so on, it is only necessary to describe the processes of self-consciousness and of memory, to subject them to analysis, and to set forth in

words (to be verified, of course, only by other minds that can repeat the same processes in their consciousness) what is found to be involved in these processes. In the narrowest possible meaning of the word "self-same," then, — and this is the meaning penetrated with a warm and irresistible conviction, — no being is really the same as *minds* are self-same that does not, by actual mental activity, make itself to be the same. Real self-sameness as minds are capable of it is a form, so to speak, of "for-self-being." Or, again, unless I am the same to myself, I am not the *self*-same being. And if I am the same to myself, then no other being can deny my self-sameness, or impair its standing at the bar of reason.

Further to draw out the import of this conclusion would only take us again over the already well-worked field of psychological analysis as applied to states of self-consciousness and of recognitive memory. We should only find ourselves again rehearsing familiar facts, — such as how the knowing subject and the object known are, in the process called self-consciousness, woven into a vital oneness of being; how the existence of any state implies a being that is subject of the state, and cannot be considered as mere state; how this subject is self-known only as in some concrete state and not as mere being *per se*; how the activity of self-reference to the subject must be considered as belonging potentially to the process of coming to self-consciousness, and to the passing through any phase that may be discriminated as one act of self-consciousness; and how belief, or conviction, warms and validates the whole activity, so as to prevent its being felt as a process of mere thinking, and thus converts it into self-knowledge, — an envisagement by Self of the actuality, here and now, of the same Self.

An analysis of the act of recognitive memory discovers, in addition to what has just been described, the knowledge of the Self as existent in the past, — then, as now, self-conscious, and referring all states to the self-same subject

of them all. Finally, the very conception of identity in its most refined, ultimate terms, is realized in no other way than by going over again, in imagination and thought, these self-same processes of self-consciousness and memory. And what it would be to be identical as *minds* are, other than to be capable of just such activity, is something of which no conception whatever can possibly be formed.

By repeated acts of this kind, however, all men form some conception of their personal identity which is at once more comprehensive and more vague than this. Memory and thought avail to produce the picture of a certain continuity of mental development which is ascribed to the Self as its life-history. As I remember my own experiences in the past, the consciousness of their similarity in respect of essential characteristics is emphasized in a vivid way. Many times, as I can well remember, have I had the same thoughts and feelings; long ago did I form, and repeatedly since have I re-formed, essentially the same plans. My disposition and tendencies, especially in the realm of affective phenomena; my complex emotions and sentiments; my habitual and ingrained modes of action and of conduct,—are consciously remembered and recognized as somewhat persistently the same. My repeated states of consciousness, whether as regarded in the aspect of content or in the character of functions, bear, amid all changes, certain permanent marks of similarity. Especially does this seem to be true with respect to so much of my being as has been taken in charge by the Ego, with a conscious intent to mould it according to a consciously formed plan,—with respect to my character, in the narrower sense of this word. As aware of all this by repeated and complicated acts of reasoning on a basis of memory and self-consciousness, I may affirm that I know myself to be, amid all changes, the same being essentially unchanged.

This inferred and secondary knowledge of personal identity corresponds more closely in its characteristics to that

sameness which is attributable to things. The Ego is conceived of as a real being, of many changing states and manifold different activities, and yet as a being that both consciously and unconsciously follows some law. Amid changes of its ideas *it* remains permanent, because it is held within limits by the power of some immanent idea.

When this identity which may be affirmed of minds is compared with that which may be affirmed of things, it is readily seen that the former has the preference in several important regards.

First, things have a known self-sameness only as they are perceived and remembered by minds. If it be not assumed that minds remain, in the essential principles of their perception and memory, faithful to the same unchanging laws of intellectual life, then there is no guaranty for the identity or sameness of any thing.

Second, things have in reality no sameness, no identical and permanent being, except as they conform to the terms of mental existence, and manifest the immanency and control of that which is inconceivable unless it be stated in terms of mind. In vain do physics, chemistry, and biology strive to escape some such conclusion as this. The terms which they employ to set forth what in the physical world, amid all changes, remains really the same, are absolutely meaningless unless all material reality is admitted to be the expression and the subject of what is ideal.

Third, actually to be known to one's self as the self-same, after the manner of every self-conscious, remembering, and thinking mind, — this is to realize the highest and most indubitable form of identity. On the one hand, to dispute the validity of the act which ascribes this self-sameness to the mind, and on the other hand to try to vindicate or even to conceive of any other kind of identity as belonging to mind, are alike absurd.

Fourth, instead of change and development being inconsis-

ent with mental identity, with this self-sameness of the Self, the depth and comprehensiveness of its identity, are measured chiefly by the variety and rapidity of the change to which it can be subjected. *All that is required of real mental development is that it shall be true to some fixed ideal.* Indeed, to adopt consciously a plan, and to conform the greatest possible variety of changes to this plan, is to be the same Self throughout, in the highest intelligible meaning of the words.

Fifth, only this kind of identity has any value in the realm of mind; only this can fitly be an object of thought, solicitude, or culture to the mind. An unchanging core of reality, as a sort of hidden "mind-stuff," at the centre of mental being, is no possession to be coveted, even if it were (as it certainly is not) anything the possibility of which can be conceived. "All states of consciousness," says Mr. Thompson,¹ "imply and postulate a subject Ego, whose substance is unknown and unknowable, to which states of consciousness are referred as attributes, but which in the process of reference becomes objectified and becomes itself an attribute of a subject Ego which lies beyond, and which ever eludes cognition though ever postulated for cognition." And to such a statement as this we have the assent of another writer² on psychology who speaks disparagingly of "Kantian machine-shop," and who deliberately discards all "mind-stuff" theory. "This," says Professor James (referring to Mr. Thompson's elusive Ego), "is exactly our judging and remembering present 'Thought,' described in less simple terms." But neither in the heavens above nor in the earth beneath nor in the waters that are under the earth, nor in consciousness, — whether regarded as envisagement or postulate or inference, — "lies" any such Ego as this. And if it were existent, and could be cornered and caught in spite of its attempts to "elude cognition," it would be an absolutely worthless

¹ System of Psychology, vol. i. 114.

² James, Principles of Psychology, vol. i. 355.

"catch," at the best. For it is only the Ego that, instead of "eluding cognition," is actually present in every act of self-consciousness, self-knowing and self-known, which has any claim to existence, or to worth of existence in case it validates its claim. Just to know the Self, as actually and concretely self-conscious, remembering, thinking, here-and-now being, is to be a self-same mind, and to know that you are self-same. For this word is "nigh thee;" it is not afar off. There is no salvation for the entity called soul, in such ghostly metaphysics as this.

In the light of the foregoing discussion the phenomena of so-called "double consciousness" become, if in certain aspects more formidable with their threats against the metaphysical tenet of personal identity, in certain other aspects much less so. About these phenomena in general, two or three remarks are necessary, even more in the interests of psychological science than of the philosophy of mind. And, first, the phenomena themselves require much more careful scrutiny with a view to ascertain the exact facts, and all the facts, than they have yet received. They are of course by no means new. Similar phenomena are, indeed, old enough; they might long ago have been subjected to that more thorough psychological analysis which they have only of late begun to receive. In their more rare form, however, they have not yet been at all systematically collected and subjected to expert treatment. In their most extreme form they are very rare, and are to be regarded as belonging to abnormal and pathological psychology. While, then, the philosophy of mind will undoubtedly be obliged to take their testimony into the account, just so soon and so far as it can be ascertained what that testimony is, their bearing and weight can properly be only such as belong to rare and irregular phenomena.

In connection with this historical fact it should also be noticed that apparently in none of the most remarkable cases of so-called double consciousness have we as yet anything

like a complete set of data for the formation of a judgment, even as respects the individual case. The same thing is true of all the phenomena of hypnotism, — a part of which indeed, in the most remarkable cases, these phenomena of double consciousness actually are. States of hypnosis, of all degrees of depth and all varieties of the extremely complex physiological and psychological symptoms, are as old as the history of man. But it is not until very recently that hypnotic phenomena have begun to receive any scientific handling by competent experts in cerebral physiology and in psychology. Up to the present time, even on the part of these experts themselves, the temptation to “plump down” a physiological or psychological theory, with coarse general outlines that fit only certain aspects of the rarest cases, has been quite too often triumphant. For example, only just now is it beginning to appear how inadequate and misleading are the current statements that no trace of memory remains over from the preceding hypnosis; that the hypnotic subject is a totally changed and wholly self-forgetful being in the state of hypnosis, etc.

Through the not unnatural desire to observe and emphasize the rarer and more abnormal extremes of the reported cases of “double consciousness,” many other phenomena which fitly serve to bridge the apparently impassable gulf between them and the most ordinary experiences have been quite too much neglected. Almost all writers on hypnotism have been guilty of this neglect, no matter how candid and thorough they may have intended to be. A similar defect of scientific observation is common enough in all the sciences. Its results are not less, but rather more, disastrous in psychology than in any of the other sciences of observation. All observers, when they allow themselves to become absorbed in the effort to discover chiefly the strange, the unusual, the abnormal, the magical, the supernatural in mental life, are accustomed to find it. And no doubt it is really there. But if it is really

there, it is in reality accompanied by, and coupled with, so much that is ordinary, accountable to known law, normal, and matter of familiar experience, as greatly to modify and tone down the theoretical outcome. Repeated and far more searching observation, directed definitely toward finding out what is *not* pathological, — namely, the evidences of ordinary self-consciousness and memory, on the basis of which every person maintains to himself his own unitary being and self-sameness, — must be given to all cases of hypnotic or insane double consciousness, before they can fitly serve as data for philosophical generalizations.

Further, the strictly *scientific* attitude must be steadfastly maintained in the examination of the alleged phenomena of double consciousness. What this attitude is, whether it be toward hypnotism or toward witchcraft, toward telepathy or toward sorcery, there can be in this age of the world no reasonable doubt. The scientific attitude clings to what is already known, to the explicable and the explained; from this firm point of standing, it then endeavors, by further extensions and new theoretical combinations of known principles, to explain that which at first sight seems to be wholly new. This is, in our judgment, the only right attitude for the man of science to take toward the modern discussions of hypnotic phenomena. The possibility of being compelled to admit wholly new principles in physiology and psychology we cheerfully admit. No *fact* or class of facts, established on satisfactory evidence, is ever to be denied. If any proved fact or class of facts cannot be brought under known physiological or psychological laws, — as, indeed, many undoubted facts cannot be, — this, too, is to be frankly confessed. But, on the other hand, all the history of the development of science, all the most sacred rights and precious achievements of science, even the very existence of science as distinguished from wild vagaries or mere popular opinion, depends upon holding fast to what we have, or think we have; and upon

using *this* as the instrument to conquer and possess the more. But if in reaching out too eagerly after the still dim and uncertain more beyond, we let slip from our grasp what we already most firmly have, the case becomes one, not of getting something new to add to the body of science;—it becomes rather a case of losing all. As for us, then, on the one hand we will not allow ourselves to be relegated to the ranks of the Philistines, because we do not rush off at a tangent in pursuit of new and high-flying theories of telepathy, double consciousness, and what not; but, on the other hand, we will not, through fear of being relegated there by others, wander afar in company with the camps of the psychologist gypsies.

To apply the foregoing cautions to the subject in hand,—even the most strikingly abnormal cases of double consciousness, when *all* the phenomena connected with them are carefully examined and duly estimated, seem likely to show another than their already too much emphasized abnormal aspect. As in the case of the insane, so in the case of the hypnotic. Between the wildest vagaries of a pathological sort and the most regular operations of the sanest mind, it is possible to interpolate an innumerable series of gradations so as to shade up or shade down from one into the other. Such a process of mediating can be accomplished for every mental faculty, no matter how much it may seem to be disordered in the case of the insanest mind. In the case of the most insane mind, even, what is normal and regular is really predominating. The inmates of our mad-houses are more like than unlike ourselves in the workings of both brain and mind. It is only that loss of all so-called faculty which distinguishes diseases like progressive general paralysis that differences its afflicted subject from other minds,—and this, by the continued removal of all manifestation of mind.

The confident and even cheerful expectation may be cherished that, as the science of psychology develops by the use

of the modern inductive methods, it will more and more see its way clear to explain states of hypnosis, with their alleged phenomena of double consciousness and all their other most unique phenomena, in accordance with the empirically established principles of all mind. Indeed, the history of hypnotism is itself a lesson to this effect; the same lesson is embodied in the very word "hypnotism." Few men of science continue to speak of "animal magnetism," or of "Mesmerism;" a diminishing number persist in ascribing these peculiar states of brain and mind to occult telluric influences, or to mysterious physical effluences from the person of the experimenter. Physiologically, hypnoses are best likened to states of natural sleep; psychologically considered, they are more satisfactorily explicable by the well-known principle of mental "suggestion" than in any other way. Who can doubt that the essential nature of brain and of mind, and of the relations between the two, remains unchanged, when, after a single word of command, or a few passes, or a minute of fixed staring, the *same* person goes from the normal condition of single consciousness to the abnormal condition of double consciousness? It may well be, however, that so-called "single" consciousness, in its most normal form, always conceals and indeed, as it were, is made up of double (and even multiple) consciousnesses, in some valid meaning of these latter words; and, on the other hand, that every case of "double" or "triple" consciousness is only a relative exaggeration of processes that customarily underlie the recognized forms of every so-called single consciousness.

In the interests, then, both of psychological science and of the philosophy of mind, we feel obliged to maintain for the present a position of reserve. Our confidence in the principle of continuity as applied to the study, both scientific and philosophical, of the mental life is such as to lead, however, to this belief, — the explanation of double consciousness,

when the facts are ascertained and the explanation is made, will be found in the extension rather than the reversal of principles already known to apply to the normal activity of body and mind. It is, then, only in a tentative way that we now briefly sketch our opinion as to what some of the most important of these principles probably are.

One of the most important and comprehensive of all principles of mental development, both in a regulative and in a constitutive way, is connected with the organization of what may be called a "psychical automatism." By a purely physiological automatism we understand those centrally initiated nerve-commotions generally due (although proof cannot be given for the very reasonable conjecture) to changes in the character of the blood-supply, which control the end-organs of motion, — as distinguished from the peripherally initiated or reflex nerve-commotions that, ascending by the centripetal tracts, excite the central organs. The term "*psychical* automatism," as it will now be employed, may properly include certain modifications of consciousness. These are, however, so transient and obscure that they either never get themselves analytically separated, as it were, by an act of selective attention and discriminating consciousness from the entire conscious complex: or else they are, although perhaps "moments" actually recognized as constitutive of the conscious complex, not consciously attributed to the Self as its state, not definitively made objects of self-consciousness. Or, again, although attaining for the instant some tinge of self-conscious recognition and of attribution to the Ego, they may never live in memory afterward, and so have no place whatever in that consciously self-known Self which is also known as self-same. [It will be seen that the sphere of the "automatic," psychologically considered, is not made co-extensive with conation, although including the conative aspect of consciousness. But it does include all that is ordinarily ascribed to wholly or nearly "blind impulse" to "instinct."

to "tact," and in general to that side or sphere of ourselves of which least is known, and which, when recognized, seems strangest even to ourselves.]

In the natural development of mental life the sphere covered by psychical automatism becomes constantly enlarged and more and more highly organized, as it were. To those blind impulses, instincts, appetencies, and unconsciously or half-consciously exercised potencies which belong to what we in our ignorance call the "nature" of the species and of the individual, there are added certain similar "residua," which are the acquirements of previous conscious forms of functioning. These appear to have dropped down from the realm of the clearly conscious into the obscurity of "the unconscious" or "the half-conscious" or "the sub-conscious," so-called. Under this description are also included, of course, the enormous number of acquired impulses, appetencies, forms of tact and habits of psychic functioning which constitute what is sometimes so significantly called the "second nature."

So, then, every man, when considered in the whole round of his potentialities as well as actual performances, is not simply, nor even perhaps chiefly, what he now consciously knows or remembers himself to be; he is also an "*automaton*." Of this automaton it may ordinarily be said, with a meaning that is something more than merely humorous, either, "I have it," or "It has me," or "I am it." But again, we may declare, "It is not-me;" it is indeed something with which *I* often have much trouble and many a sore battle, and from which *I* receive much help or ill-usage, as either my best friend or my worst enemy. *I have* the automaton, because within certain limits (narrow enough, indeed, at some times) *I* can control it, and show ownership over it as over one of my belongings. But then again the automaton *has* me; for in spite of my fixed determination to depart, on due occasion or habitually, from its ordinary modes of procedure, its grasp upon me is not successfully broken by any number of conscious idealizations or

deeds of will. I *am* the automaton; for, to be sure, what is this other, this puppet, but a part — and sometimes it would seem the more important part — of my own self-same Self? But then, finally, I am *not* the automaton; I externalize it, objectify it, objurgate and anathematize it; or I give thanks to it, when it has carried me safely over places where I should not, consciously and reflectively and voluntarily, have known what to do.

Now, this partial separation of the *Ego* and its automaton may, so far as time is concerned, be characterized chiefly by simultaneity, or chiefly by succession. In certain conditions which are entitled to be called normal (at least, if by “normal” be meant the customary rather than the easily explicable), and which are indicative of the true and more abiding nature of mind, two closely related courses of functioning, each characterized by its appropriate form of consciousness (or by “no-consciousness,” if the use of the word be allowed in this way), may run along together nearly side by side. Such a thing actually happens, in a limited way, whenever one is walking, while at the same time in conversation or in thought; whenever a skilled musician repeats some well-known composition, or improvises, while mentally engaged with concerns of a far different order. Here it is the automaton chiefly which walks and plays, with little or no recognition or control from the self-conscious and reflective soul. Yet this so-called automaton is not purely physiological, but is partly psychical; for a tolerably continuous train of *co-consciousness* — although it may be dim and not recognized as belonging to the Self — exists as an actual form of mental functioning in control of the bodily movements.

In many cases of more than ordinarily exalted activity both the self-conscious, remembering, and thinking soul, and also the well-trained automaton with its dimly conscious or sub-conscious guidance of the impulsive, instinctive, and ideating activities, do splendid service by co-operating at the same

time. Not a few brilliant extemporaneous speeches have been made, or rare improvisations performed, when the self-conscious mind of the performer was far away, and occupied as it were with sad accusing thoughts, or with memories absorbing all its powers. The *Ego* then took little or no account of its *automaton*, and the *automaton* made little or no report of its doings to the *Ego*. But the *automaton* behaved according to its office, as an *automaton*, quite as creditably as did the self-conscious, remembering, and reflecting soul. Indeed a large part of the most impressive art-work of the world, in all the various departments of art, has been performed, not so much with self-conscious ideation and reflective purpose as with inspirations and forms of striving that seem born of a life beneath and above the self-conscious soul. The artist must then confess, "The work was done not so much *by* us as *for* us, by another within us. It is only a pardonable exaggeration which has in all ages made many of these workmen themselves declare their ignorance of the rules which governed them, and which has even compelled them to ascribe the work accomplished by them to some indwelling or overpowering divine influence.¹ Thus the "automaton" becomes imaged as a genius, a dæmon, or a god, — another than me, a "not-me," and yet related in so intimate and peculiar a way to the self-known Self as to be liable at any time to be absorbed into it again.

In other instances, perhaps not much more rare, the psychic automaton, instead of running its career in a sort of parallel course with the self-conscious Ego, so as to give the impression of two or more strata of consciousness lying

¹ A recent investigation, undertaken to discover the principles consciously followed by the authors of successful theatrical compositions, however unfit for a safe scientific generalization, makes clear this point of view. "Nous ignorons comment notre esprit s'y prend pour faire une pièce de théâtre," says one author. Another, M. Pailleron, even goes so far as to declare, "Si quelqu'un sait, après avoir écrit une bonne pièce, comment il s'y est pris, qu'il recommence." (*Revue Philosophique*, Fevr. 1894, pp. 228 f.)

one beneath the other at different depths, as viewed from the superior point of view of self-consciousness, assumes for the time being nearly exclusive control. Many cases of artistic, military, or religious "inspiration" so-called, exhibit the phenomena of double consciousness in this form. Thus the warrior, only after his frenzy in the battle has subsided, and even then but partially, becomes conscious by memory and inference of what he *has* done; but the consciousness which accompanied the actual transactions is more accurately described as that of "another" acting in ways and with impulses only very imperfectly known to the self-conscious mind. In extreme instances it requires all the force of the most convincing objective records — the testimony of eye- and ear-witnesses, or the changes effected in external things — to convince the actor himself that he did in fact so behave. Its own automaton astonishes the Self either by working in a relative independence of its control, and yet under its eye, for a season, or else by deeds which challenge self-conscious thought to account for them at all except by ascribing them to this automaton.

Similar phenomena doubtless lie at the base of that language which has so frequently been employed to describe the results of religious inspiration. The Self is said to become the "scribe," the "organ," the "mouthpiece," the "penman," or even the "pen," of Another than the Self. Oftentimes — so Philo Judæus declares of himself — when he has come to write upon a subject with his mind empty, all of a sudden it has become full; thoughts have fallen from heaven like a shower of snow, or like seed from the hand of the sower, into his mind; he has become possessed of a Corybantic frenzy under the divine impulse; he has become altogether ignorant of the place, of the persons present, of himself, and of what was said and written.¹ In general, according to Philo, in inspiration the human withdraws completely before the

¹ *Quis rer. div. hæc. t. i., p. 510.*

divine; the finite soul yields up its place to a heavenly visitant.¹

Extreme cases of "possession" or "obsession," and certain forms of insanity where the disordered sensations and mental images are objectified and personified so as to constitute, out of part of the mental phenomena, a sort of "double" which is recognized as standing in peculiar relations to the Ego, might, of course, be instanced in this connection. But why should illustrations for the principle be sought in unfamiliar and abnormal experiences? In no unimportant way the same principle becomes operative in the case of almost every dreamer for all that portion of the twenty-four hours of his daily life which he passes in dreams. The phenomena of dream-life are, as a rule, so different from those of the waking life, so little remembered and self-consciously attributed to their real subject, that it is not difficult to consider them as belonging to some other than the Self with whom we are made acquainted by our waking states. Sometimes, indeed, these phenomena get themselves organized, as it were, into habitual forms of recurrence which present this other and much more purely automatic Self as markedly different in impulses, habits, environment, and even conscious feelings, ideas, and purposes, from the characteristics of the much more self-conscious, self-active, and reflective Self of waking hours. Thus the automaton, that is in reality *ours* and yet is in some sort *not-ourselves*, comes to possess the entire time during which the stream of dream-consciousness is running, in a kind of daily succession with the true and higher Self. This automaton, so far as known at all, appears to us as more or less markedly unlike the self-known Self. *It* holds the reins by night and drives the rickety cart of consciousness in an irregular, freaky, and yet perhaps characteristically "tempera-

¹ The prophet is quite unconscious of everything he utters in this condition of ecstasy; he cannot comprehend it, is indeed in utter ignorance of it; he speaks all *γενναῖς ἐν ἀγνοία*. — De spec. leg., t. ii., p. 343.

mental" way; but by day *we* take the reins into our own hands, and "character," self-conscious thought, and choice direct the mind's chariot along the paths of what is real and true and good.

Moreover, our entire waking life is characterized by successive risings and fallings in the dominance of the psychically automatic individual and the self-conscious, reflecting, and self-active spirit. Repeatedly does each one catch one's self in the condition of being aroused from states in which half-blind impulse and nearly passive association spurred on by feeling have almost or quite absorbed the entire field of consciousness. Not infrequently, as one is aroused, one is wholly unable to remember, or can only descry as shadowy shapes, with faces turned from us and fleeing toward the gulf of oblivion, any of the mental images or other experiences belonging to these states. "The psychic automaton" has been playing the prominent part upon the stage of mental life; and it is conveying swiftly away its troop of actors, just as the eye of the intellectual and moral critic turns reflectively upon that stage.¹

Another less important and yet most suggestive class of facts, which throw much light on the more advanced cases of double consciousness, may be brought under a psychological principle for which we venture to suggest the phrase, the "dramatic sundering of the Ego." This class of facts, when subjected to thorough psychological analysis, and explained in the light of acknowledged psychological laws, instead of enabling us to dispense with the authority of self-consciousness, is found to have its very origin and significance only in a full recognition of the activities of self-consciousness. In other words, *I can make myself seem to myself two or more selves, or I am able to appear to myself as two or more selves,*

¹ A discussion of the phenomena of double consciousness in hypnotic states, from the physiological and experimental points of view, which concludes that "hypnosis consists in an artificially induced preponderance of the secondary (or automatic) *Ego*," may be found in Max Dessoir's "Das Doppel-Ich." Leipzig. 1890.

only as I am capable of constituting myself, and appearing to myself, as one and the same Self. That dramatic sundering of the *Ego*, upon which many of the most startling phenomena of double consciousness depend, is itself possible, in any exalted form, only for self-conscious and cognitively remembering minds.

In discussing the nature and import of such phenomena of mental life, an appeal must be made to states of consciousness somewhat similar to those which were just referred to as coming under the principle of psychic automatism. And, indeed, "the psychic automaton," the "other-Self" more or less consciously created and recognized as the resultant of mental activities, and the creating "self-cognizing Self," get mixed together and interrelated in the actual mental life, in many most curious and interesting ways. When I dramatically put myself in another's place, think my thoughts as his thoughts, and feel the feelings appropriate to that other's imagined or known condition and environment, it is largely upon my own automaton, of course, that I draw both for material and for constructive energy. This statement simply involves an extension of the principle that all interpretation of the consciousness of others, all entering into human life in general, or into the specific form of life belonging to certain individuals, depends upon self-consciousness. Only as I know and remember my Self, and as I regard the forms and laws of mental behavior as unchanging, can I mentally represent others than that Self, — be they kings and queens, or thieves and beggars, among the children of men. This is true even of my thoughts about the psychic life of the lower animals, or the psychic side of plant-life, or the doings of "mind-stuff" as *mind*-stuff, or the quiescent and dreamy consciousness of some hypothetical "World-Soul." It is always the same *I* that puts itself into that *other*. No matter how unlike what I really am that other may seem, for the time, to me to be; and no matter how absorbed, even to the

temporary loss of all self-consciousness, I may become in that other, — all goes back to self-knowledge, to self-feeling, to consciousness of self-existence as one and the same. It is all this or nothing; and there is no third to choose.

The kinds and degrees, however, of this “dramatic sun-dering of the Ego,” are many; the variety of instances is almost innumerable. Among the most interesting and suggestive psychologically are the performances in which children indulge. In the development of early infancy the construction of the Ego as self-known, and the power to separate off this Self, and by an activity of lively imagination project it into another, proceed almost *pari passu*. Thus the young girl who plays the part of the patient does not simply pretend to be ill; she has, according to the measure of her past experience and the vividness of her imagination, the real thoughts and feelings appropriate to the case. To pretend in earnest to be ill *is* really to be ill; and no doubt some of the so-called real illness of her later years will be fully as much pretence as is this earlier play at illness. Yet she can, by dint of questioning, be called back at any time to the knowledge that she is not *really* ill, but is really only *playing* the part of patient. So that, after all, the healthy and normal Ego regards the Me, when made ill by imagination, as a sort of other Self. Nor does her companion who takes the part of doctor prove herself less equal to the peculiar task of artistic diremption imposed upon her.

Or, by a scarcely greater stretch of activities in a similar direction, the same narrow personality of the child may break itself up into two so dissimilar selves as are a patient and the doctor; for the same child can play both patient to itself as doctor, and doctor to itself as patient. Who that has watched the skilful and quick shifting of the phases of consciousness, the successive appropriate objectifications, of the little mother with her doll, can doubt the psychic reality of what is thus accomplished? But here the measure of the actual diremp-

tion of the Ego thus secured is to be found in the child's previous experience with its own Self. Both the process which makes the child a real child to itself as mother, and that which makes it a real mother to itself as child, presuppose and call forth a certain development of self-consciousness, of recognitive memory, and of reflective thinking. Now it is in the exercise and development of these faculties that all the self-known reality and identity of mind has been found to consist; and without these faculties it would be quite as impossible for such dramatic sundering of the Ego to take place at all as for the consciousness of Self to approach perfection.

In dreams, too, this same psychological process often takes place in a startling way. Its result is connected with the answer to the question: Why do dream-images — absurd, changeable, and impossible as they are — become so objective to the mind, so real to the dreamer, both during the dream and after he has awakened out of his immediate enthrallment? The true psychological answer to this question reverses the ordinary impressions; for all images, both those of waking life and those of dream-life, are originally alike both objective and subjective. It is only the critical operation of trained intellect, checking and correcting the native metaphysical tendency to objectify *all* mental images, which — in sane waking life — prevents *such* images from being considered realities as in dream-life have no difficulty in validating their spurious claim. And so it comes about that to the uncritical Self in dreams any of its performances may be appropriated; and any other of its performances, equally its own, may get appropriated to some other object or other Self. For the dreamer, as says Delbœuf, is a "momentary and involuntary dupe of his own imagination," as the poet is "the momentary but voluntary dupe," and the insane man is "the permanent and involuntary dupe."¹

Instances of this dramatic sundering of the Ego in dreams,

¹ Le Sommeil et les Rêves, p. 91.

where part of the life of consciousness has been "split off" and organized into an impersonal object or another Self, are abundant enough. Why should it not be so in this state where the mind holds everything for true and real which fancy throws up before it?¹ Thus we read of an asthmatic dreamer who, himself panting and sweating in sleep, saw one of the horses in the *diligence* in which he was taking a dream-ride over a mountainous road fall down and lie panting and sweating before his eyes. Said a sleeper on whose face Preyer sprinkled some sprays of water: "Pray take a cab; it is raining terribly." Not infrequently that other Self, which has been created by a "dramatization of selfhood" (so Delbœuf) out of certain selected "stuff" from the stream of consciousness, seems to get the better, either in action or in knowledge, of the seemingly real Self. Here might be mentioned the case of the boy who dreamed out correctly the construing of a difficult passage in Latin by hearing it given by a triumphant rival, when he could himself make nothing out of it. In the same way M. Maury, by a dramatic sundering of the Ego in a dream, corrected the bad English of his real Self by the good English of the other unreal Self. "I called for you yesterday," said he to his friend in his dream. "You should say, I called *on* you yesterday," responded the grammatical monitor which the dreaming consciousness had itself created. And was not Dr. Johnson once greatly vexed at being worsted by his opponent in an argument in a dream?

In all such instances taken from dream-life, the principle of simultaneous or successive action and interaction between the self-conscious Ego and its automaton, and the principle of more clearly conscious and intentional dramatic sundering of the Ego by its own act, operate in ways that render them almost indistinguishable. But there are certain familiar experiences of waking life which serve to clarify and

¹ On the "dramatic sundering of the Ego" in dreams, compare Du Prel, "The Philosophy of Mysticism," vol. i. 112 f.

emphasize the latter of these two principles. Here again, as happens almost uniformly in the mental life, what is rated as highest and what is rated as lowest evince the same psychological principles. Psychologically considered, the dreamer often becomes a constructive artist or a seer of no mean order; and, on the other hand, the artist, the actor, the inspired prophet, or even the ethically quickened man in his states of most intense moral consciousness, behaves in certain important respects *as though* in a dream.

The experience of actors may be appealed to in illustration of this truth.¹ This experience, indeed, differs greatly as respects the completeness with which different and perhaps equally successful performers throw themselves into the personality — with all its changes of feeling and thought, as fitted to the changing situations and the development of the plot — which they for the time being represent. Some actors testify that they not only *appear to the audience* to be the person whom they are dramatically presenting, but that they *are to themselves* that very same person; they for the time being suffer his woes and rejoice in his triumphs. Their own true and normal self is absorbed in the characters of the plays they are acting; so that it requires some shock, or other distinct reason, for resuming meantime the selfhood which belongs to this true self. Other actors claim, however, that they find it necessary to maintain constantly a reflective and critical attitude toward themselves; they must consider themselves not as *being* temporarily the characters they represent, but rather as always *playing* a part.

More careful psychological examination of all these cases seems to show that we are here dealing simply with a question of degrees. The actor who plays a part wholly without putting himself into it — if indeed such a thing be possible — is necessarily a hard, unfeeling, and untrue representative of

¹ On this subject see the very suggestive inductive examination made by William Archer in his work, "Masks or Faces?"

that part. Some considerable genuine dramatic sundering of the Ego is indispensable to a satisfactory dramatic representation of the person who is really other than this Ego. On the other hand, the actor who becomes so completely absorbed in the part he is playing as to lose all self-consciousness and critical reflective control over the projected secondary Ego,—who suffers the dramatic sundering to become so complete as that his own Self is finally lost in that other Self,—must either have such trained powers and such genius as that the automaton can be safely trusted with this important work, or he must probably fail of the highest success by over-doing the matter. In fact, we do not believe that either of these extremes is ever completely realized. What actually takes place is a kind of more or less intermittent intercourse between the two streams of consciousness. *I* as the actor observe the *me* that is now in the part *I* am acting. *I* am indeed living largely in that other who is so different in character, situation, and destiny from my own true Self. *I* am he; and nowhere in the world perhaps does he exist just now except as the *I* that am absorbed more or less completely in him. And yet all the way through this absorption of my Self in that other, my consciousness is shot through and through with perceptions, feelings, memories, and thoughts which are of my own true Self; and these lead me to distinguish this other from that true Self; although this other is in truth my own true Self acting a part.

Perhaps the most marvellous example in all history of the achievements possible through this cultivation of native genius in the power of dramatic self-diremption was the novelist Balzac. Of this author we are told, so vivid was his sensuous imagination that the mental representation of a knife cutting his flesh anywhere produced the keen and lance-like pain that ordinarily requires actual cutting. It was not simply in some *one* other than himself that this man had the power of becoming absorbed. For he seems to have lived, as his own expe-

rience while setting on the stage all the wonderfully varied characters of his "*Comédie Humaine*," the whole round of the thoughts, feelings, and purposes of all the characters. They dined with him, slept with him, walked with him, and sat beside him in the room where he worked. The rather was he, as a self-conscious, remembering, and reflecting Self, constantly, for the voluntarily adopted purposes of his art, so projecting himself into these ideals as to create out of the projections veritable selves that ran their appropriate courses of history somewhat nearly parallel with one another, and with that stream of consciousness which was especially identified as their author's own. *Other* selves they were, set over against each other and against *his Self*; and yet they were all *Balzac's creations*, the recognized and well-loved works of the creative genius of this central Self.

Particularly interesting and instructive for the study of the same psychological problem is the experience of the ancient Hebrew prophets, and indeed the prophetic consciousness generally. The very basis of the experience which belongs to prophetic inspiration is laid in a certain dramatic sundering of the Ego. To become consciously inspired, the subject of inspiration must recognize an Other than his own Self, standing over against this Self and holding some form of communion with it; and yet, as to the existence and character of this Other — lo! it appears that it is *in* the Self that is inspired (for inspiration which is external is not inspiration at all), and that its character corresponds to and is determined by certain of the thoughts, feelings, and purposes belonging to the normal Self. These thoughts, feelings, and purposes have organized themselves into another One than the Self in which they were themselves born.¹ In view of this experience the Hebrew prophets describe their state of inspiration

¹ This view is psychologically true, as all the phenomena of prophetism among the Hebrews and elsewhere abundantly show; and this as quite independent of whatever answer may be given to the inquiry after their more ultimate origin, whether supernatural or natural.

as a "falling of the hand" of Jehovah upon them; or, again, as the coming of an oracular "word;" or, yet again, as a "burden" which is laid upon the soul, and which they must lift up and bear. Thus, too, they—their real but inferior selves—sometimes enter into a communication, which is described in the most objective and realistic manner, with that other One who is in them as their better, truer, and wiser Self; and yet is not wholly this Self, but is an Other. At times the process of dramatic sundering becomes so complete and lively that they argue with this Other, plead with him, complain before him, and voluntarily surrender to or venture to disobey his most explicit commands. For who can resist the Almighty, when He appears as another Self, within ourselves? Yet our self-conscious and self-active Ego can and does resist even Him.

It is not necessary, however, to appeal to phenomena, even so relatively extraordinary and unintelligible as those of dream-life, or of certain forms of æsthetical and prophetic consciousness, to illustrate the wonderful self-diremptive energy of the human soul. All intense and highly developed moral consciousness affords a startling illustration of the same power. The essential characteristic of all moral consciousness is that of "thoughts accusing or else excusing one another." In recognition of this characteristic we find the Apostle Paul declaring, "the good which I would I do not; but the evil which I would not, that I practice." "*I*" consent unto the law; but I find another law (another Self, inciting and consenting) within my members, bringing me into captivity. Ethically considered, I am regularly two rather than one, until I become "one with the law;" and yet by virtue of my ethical consciousness alone do I attain the highest form of rational unity—the unity of a moral personality. In recognition of the same unique phenomenon, Kant personifies and objectifies this other Self, and gives it the significant title of a "categorical imperative." *The en-*

ture Kantian system of ethics is, indeed, based upon a figurative interpretation of this ethical double consciousness. The noumenal Self, belonging to the world of realities that are incomprehensible and even impossible to understanding,—free, and yet standing in an attitude of necessary respect toward a law which it is bound to keep,—and the phenomenal Self, caught and enchained inextricably in the causal nexus of a natural world-order,—these two am I; and yet somehow these two are one in that unity of apperception which must serve as the menstruum, the solvent, for all that I can ever know or even think myself to be. It is not, of course, our present purpose either to defend or to correct the positions of the “*Kritik der Praktischen Vernunft*”; we only call attention to the fact that its psychological basis depends upon essentially the same dramatic sundering of the Ego which is characteristic of all awakened and developed moral consciousness. Its *a priorism* is justifiable, or even explicable, only as such forms of mental functioning are found actually to belong to the essential nature of man as a moral being. And all the metaphysics implied in these phenomena—call the conclusions as to reality by the name of “postulates,” or what you will—is valid only as recognition is given to the persistency and the significance of these psychological facts.

Whenever the plain man takes himself in hand in a distinctly ethical way, he performs to some extent this act of dramatically separating his one Self into two opposed selves. The one judges, approvingly or disapprovingly, and punishes or rewards the other. Estimated by the ethical standard,—which is, of course, the standard that alone applies in this sort of transactions,—the one is called “the higher” and the other “the lower” Self. The former undertakes to summon the latter before its bar, with an assumption of unimpeachable veracity and authority. Not unfrequently does the “I” which is the higher Self call the “me” which is the lower Self by many opprobrious terms (such as “knave,” “fool,”

“sinner,” “slave”); and it will not readily suffer dispute as to its right to do this. This higher Self promptly condemns the other to its own scorn, to the scorn of all moral sensibility, to incarceration in prison, to the gallows, or to the fires of hell. More rarely, it praises, and awards the prize of universal good-desert or the joys of Paradise.

Nothing in the whole realm of human experience is any more real and indicative of the profoundest being of the human mind than just this activity of self-diremptive moral consciousness. It is quite vain to try to break the force of the argument by speaking contemptuously of this experience as the work of diseased imagination, etc. Without work of imagination there is possible no knowledge of any reality, whether of things or of minds. And here, as elsewhere, the question of sanity or disease is chiefly a question of degrees and of balance in the exercise of the several so-called faculties. Besides, this is the very point for which we are now contending; namely, that the sanest and most ordinary states of mind illustrate and enforce the same principles as those which must be taken into account in all explanation of the most abnormal and extraordinary. It requires at times only a little pushing further toward its extreme possible limit in order to make this process of dramatically sundering the Ego, in the form of moral consciousness, as complete as the most remarkable cases of hypnotic double consciousness. Men of the profoundest self-knowledge have been found to speak as though the entire system of moral consciousness could be best described only in terms of “the good angel” and “the devil,” that contend within the same soul for its mastery. Thus on certain occasions with many sane minds, and habitually in certain forms of insanity, *three* rather than *two* selves seem to be in interaction, both below and above the threshold of ethical consciousness. There is, first, the bad Self, which has now become personified and objectified as the dæmon that is in the me and possesses it. There is, second, the

better Self, which has taken the form of my good angel, and which contends with the dæmon, or grieves over and pities me. And there is, third, the Self that is recognized as *my* Self, but which is perpetually in the place of the "torn one," — a self-conscious and still, though perhaps feebly, self-active personal ground, on which the two others are waging their terrible battles. Indeed, in certain cases the latter appears almost as a helpless and disinterested spectator of the conflict between the other two.

Those who have most examined the general field of hypnotism from the psychological point of view can have little doubt that the two principles of a progressive organization of psychic automatism and the development of the power of dramatically sundering the Ego find a wide application there. Indeed, this field is closely connected (but by inappreciable gradations) with the familiar phenomena of our waking and ordinary life. The very word "hypnotism" is employed to designate, in a rather loose and indefinite way, a somewhat heterogeneous collection of physiological and psychical phenomena. But when one has entered that field from the points of view fixed by scientific physiology and scientific psychology, one finds the principle of continuity regnant also there. Its phenomena — however strange some of them appear at first to be, and however they may seem to demand strange and occult psychological explanations, or a wholly new metaphysics of mind — all give token of a disposition to yield in time to the patient investigator who will not willingly let go the little that he does know, in the interests of the unknowable or of the still unknown.

Returning then, finally, to the question how the true doctrine of the known self-identity of mind is affected by the extent to which these two psychological principles are carried in certain cases of hypnotic double consciousness, we venture to affirm: In no new important way. In general, without the operation of these principles, the highest development of

consciously real and self-same mind could never be attained. And, within certain limits, the higher the organization of the psychic automaton, the more is the self-conscious Self left free to perform its own functions and to know itself as really existing and as self-same in the performance of them. So also in those cases where the process of self-diremption, and of putting one's consciousness into another and under that other's control, is only partial and temporary, this process may itself both express, and also actually operate to increase, the wealth of the life of the self-conscious soul. He surely is not the greater mind who never has experiences answering to those of artistic or religious inspiration. *What is necessary, however, in order to prevent the loss of the mind's reality and identity*, in the dark abyss of unconscious or dimly conscious automatism, or upon the heights where a transfiguration of character has taken place, *is the power of self-recovery*. The Self must come to itself again. It may come back refreshed or wearied, more or less changed, and freighted with the memory of strange experiences that have revealed to it capacities and possibilities before unsuspected; it may come back as awakening out of a long and dreamless sleep.

Suppose, however, that in rare instances this return should bear no trace of self-consciousness, of recognitive memory or of reflective thinking, to bind the present Self with the old Self,—why, then the “return” would be no real *return*; the new states of consciousness would have no meaning as a “coming to” one's self again, and the Self now manifested and developed would be, in no intelligible meaning of the words, the “self-same” Self. Suppose, again, that some individual subject of extraordinary hypnotic influences should alternate between two conditions, in which not only different sides of the complex disposition or different aspects of acquired character were emphasized, but between which no actual self-made connection by way of self-consciousness, memory, or thought could be traced,—

then, in every intelligible meaning of the words, we should have a true case of "double-Ego;" or, rather, we should be compelled to speak of such a case as a case of two real selves, or of one real Self and an automaton, or a dramatized and, objectified double of this Self. No such case, so far as the evidence is as yet sifted and understood, has ever occurred. But should such a case occur, we repeat, the principles neither of psychology nor of the metaphysics of the mind would admit of alteration to fit it. The solution of its problems, so far as they are peculiar, would have to be given into the hands of speculative ethics and of the philosophy of religion; or else all hope of solution would have to be abandoned.

Let it not be thought, however, that either materialism or phenomenalism would thus gain any advantage over those positions in the philosophy of mind which we have been advocating. The positions are intrenched within the field of actual human experience, so that they can never be carried by any form of attack. Or, for the moment, suppose them to be undermined; then it is not the self-known reality and identity of the mind alone that is lost from the field of human knowledge. All reality and sameness of every kind is lost. For all knowledge is lost; and without knowledge guaranteeing its own validity with that irresistible and mysterious conviction which is a part of itself, no reality has any existence or guaranty. What is now called science then becomes the dream of a dreamer who is the permanent and incorrigible dupe of his own imagination. And not last and least, but soonest and most completely, is this the fate of that raw and wild pseudo-science which regards knowledge itself as but the "epi-phenomenon" of a remote and inferred phenomenon, to be called by common consent a human brain.

CHAPTER VI

THE UNITY OF MIND

THE nature of that unitary being which is universally ascribed to mind is so connected with the topics already discussed, as that comparatively little remains to be said in this chapter. Indeed, in considering the consciousness of identity and the phenomena of so-called double consciousness, we found ourselves constantly employing the words "one" and "two" with reference to the mind. But the very use of these words implies some conception as to the propriety of speaking of the subject of mental phenomena in terms of number; it also implies reference to the character of those special phenomena in which the guaranty for this mode of speech must be found.

Here again, however, it will assist in clearing the field under discussion, if reference be made to certain considerations borrowed from general metaphysics. With what meaning do we employ words when we affirm oneness or unity of anything? Or, to express the inquiry in more definitely metaphysical terms, what is it in reality that corresponds to our conception of being one, as each so-called "Thing" is one? Little psychological analysis is required to make it obvious how shifting and uncertain are the ordinary uses of these words. Indeed, as these words are ordinarily employed, everything, and every transaction may be regarded as one or as many, according to the practical end had in view. Whatever is capable of being united in that synthesis which is necessary to all sense-perception is regarded as having a unity corresponding to the end, or ideal,

in behalf of which the act of synthesis is performed. The table, for example, is one to visual perception, because its different areas and aspects can be united by activity of the eyes — imagination and judgment as determined by previous experience, and fused with the mastery of the sensuous data, being pre-supposed — with some practical end in view. The same table is another one as known to perception by skin, muscles, and joints, — a second very different thing from that which it is as known by sight. And yet the sight-table and the touch-table is one and the same table if we resume the customary point of view. To physics, again, the one table is many; and it is quite a different number of things, according as our point of view changes in pursuit of various well-known classifications of physical properties and physical laws. To chemistry the table is many more; it is, indeed, an indefinite number of different kinds of so-called atoms.

Now in all these cases it is indisputably the mental activity of synthesizing which imparts unity to the phenomena. But what *in reality* is that unity which the things, as things, may be supposed to have? In answer to this question, physics and chemistry — especially the latter — are wont to refer us to that unity which in the strictest form of all possible physical unity belongs to the atoms alone. Only the individual atom remains one throughout all changes of relations; the unity of the things which are composed of many atoms is wholly relative to the kind, number, and relations of the atoms which compose them. But again the inquiry returns: What that is real (whether as being or as event) corresponds, in the case of the individual atom, to our conception of its unity? There can be no doubt that in pushing the answer to this inquiry, as far as metaphysical analysis can possibly carry it, we only come upon the same group of conceptions as those which have already been found necessary in order to understand the reality and the identity of things. In other words, things can really have the unitary

being which we conceive of them as having only in case they do actually conform, with respect to the changes which they undergo, to some immanent and controlling idea. *The actual presence of some ideal in the very being of the thing is necessary in order that it may be a unitary being at all.* Undoubtedly, this is all very obscure; but it illustrates anew the important fact that physics and chemistry have a system of metaphysical assumptions underlying them as empirical sciences which is infinitely more uncertain and difficult to put into terms of experience than is the metaphysics of mind.

For when we pass from a consideration of the real unitary being which things and atoms have, to a consideration of the question, In what sense do I know myself to be really one? we may at least begin our answer by an immediate appeal to indubitable experience. Such experience is, of course, that which every man has in so-called self-consciousness. To be really here and now one, as becomes a mind, and as belongs to the very nature of mind,—this is nothing else than actually to be self-conscious; for it is just this exercise of the developed faculties in constituting the Self as one to itself in which all unitary mental being really consists. Men do indeed form a conception of the mind as one, and as known here and now to be one, which is wider than this. They go on to include in the unitary being of mind, as expressed in each one of its states, certain powers of an obscurely conscious or subconscious or totally unconscious order. Thus *the Mind* is spoken of as the one being that performs also activities below the threshold of consciousness; although, of course, it is only in terms of self-conscious experience that any one can tell what it is to be the subject of subconscious, or of totally unconscious, conditions, activities, or states. The psychological reasons for this limitation of the psychologist's power are obvious, and do not concern us here.

But it can never properly be forgotten that it is only experi-

ence with the Self as actually self-conscious that both originates and justifies all such terms as "unity," "oneness," etc. For a conscious being that had never been self-conscious (as is probably the case with all of the lower animals) there would never come to be any known or imagined subject of states — any Ego, Self, or Soul — to which the subconscious or unconscious states could be referred. For the Self must be actually created as a unitary being, and known to itself as such by processes of self-consciousness, memory, and reflective thinking, before it can be even surmised to be the one subject to which *all* states and activities, however lacking in consecration by this actual self-reference they may be, must be referred. On this point, however, there is no need to go again over the considerations which have already sufficiently occupied our attention.

What is the nature of this unitary being which the mind knows itself here and now to have, can only be stated, therefore, in terms of self-consciousness. And for the meaning and justification of all the terms the only appeal is to self-consciousness. The last word on the subject is this: *What thou knowest thyself to be as one, when thou knowest thyself self-consciously to be at all,—that, and nothing else is the essence of the unitary being of mind.* With this the great variety of so-called faculties is in no way inconsistent. The rather is the real unity of the mind dependent upon the exercise, in the fullest way, of all the faculties; for they are all implied in every act of self-consciousness; the completer their activity, the more truly one is the mind, as here and now present, to itself. Neither is this unity inconsistent with the onward flow, in varied forms of manifestation, of the so-called stream of consciousness. On the contrary, all self-consciousness is — it has already repeatedly been said — actually a process of becoming; and a simple, unchanging mental state (if such an impossibility were psychologically conceivable) would never serve to constitute or evince the unitary being of the mind.

The metaphysical truth just stated may be made clearer, from the psychological point of view, by a comparison of the most exalted and comprehensive states of self-consciousness with states of dreaming, of confusion of thought, of distraction by pain, etc. It should not be forgotten, however, that all states of the latter class may serve by contrast to emphasize the more our self-known unity, as self-conscious mind. On the one hand, the difficulty of separating by fixed psychological principles the limits of dream-life from those of waking life may be used to favor the representation that all human life is indeed a dream. Life is *Mâyá*, illusion; and reality is nowhere to be found, whether for things or for minds. But on the other hand, to be aware of the significance of dream-life as indeed *dreams*, it would seem to be necessary to invoke what is not characteristic of this life itself; that is, to invoke that clearer self-cognition and distincter reference of the state to the one Self, which is made all the more emphatic by its conspicuous absence from most dreams. So, too, the return to Self from the confusion of thought which sometimes seems to absorb it is often accompanied by a feeling of release or of triumph, which itself enriches and deepens the self-cognitive activities. And this same Self which is thus known as one, in spite of the assaults just made upon it, proclaims as belonging to its own unitary being the very thoughts which have so confused it. While we do not agree with Lotze¹ in making the feelings of pleasure and pain so essential and determining for the development of self-consciousness, we cannot wholly overlook the heightening effect which these feelings sometimes have. For no experiences more certainly get themselves attributed to the one Ego which each one knows himself to be, than do those of pleasure and pain. If the automaton can think and act for me without letting me know what it is about, and without receiving from me con-

¹ See especially the "Microcosmus," vol. i., book ii., chapter on "Feelings, Self-consciousness, and Will."

scious control and instruction as to what to think and to do, still it cannot be considered as suffering my pains or enjoying my pleasures. Enrapturing joy and distracting agony snatch, or draw away, the soul from clear contemplative thinking and from voluntary action; but instead of drawing it away from itself, so as to make it seem two instead of one, they rather concentrate it within itself. I am all in my pains and pleasures when they are intense and pervasive in their influence upon consciousness. And in the most complete dramatic sundering of the Ego, the imitative and sympathetic affective accompaniments can scarcely reach a high degree of intensity without returning upon the *Ego* and fastening themselves upon it, as being indeed its very own.

But, plainly, men affirm something more of themselves than this when they consider themselves as unitary beings in respect of their mental life. The oneness which they attribute to the Self does not by any means all belong to that experience which is here and now. It is not solely, then, to the unity of self-consciousness, as such, that we must look for an exhaustive account of what is meant by the customary affirmation of the unitary being of mind. The rather does this affirmation connect the present state, in which I know myself to be here and now, with other previous states, whether actually remembered and attributed to the same Self, or inferred to have belonged to it. In some sort the common conviction undoubtedly maintains that through its entire life-history the mind of each individual man is one. This certainly implies confidence in that self-identifying which has already been found to belong to the essential nature of all recognitive memory; but it also implies something more. To consider myself, as a present mind, to be one with myself as formerly present and active in all remembered past experiences, — this is scarcely anything different from considering myself as a Self-same Self now and in those past experiences. When we say, “One *and* the self-same being am I, now and then,” we do not increase our knowledge by using the conjunction.

The claim of such a unitary being for the mind as reaches through an entire life, and as includes all the many unremembered states and activities within the unity of its being, is certainly based, however, upon other data than those merely of self-consciousness and recognitive memory. *This claim implies a continuity of mental development according to some known or imagined plan; and it can be made logically good only by a large amount of reflective thinking.* It can be made good in reality only by an actual development answering to this abstract conception of unity. Really to be one mind through an entire life-history is actually to undergo a continuous mental development according to some plan. To know one's self as such a unitary being is, by self-consciousness, memory, and especially by reflective thinking, to become aware of such a planful and continuous life-history.

With this more desirable and comprehensive unity of mind, therefore, the acquirement of faculty and the being subject to a course of development is not inconsistent. On the contrary, the reality of such a unitary being for the mind consists in just this course of development. It is an achievement rather than an original endowment of mind. It is an achievement which, in case it is to reach the highest possible grade, requires the self-conscious and voluntary direction of the original and acquired powers along a remembered and recognized course of development, according to a comprehensive plan. In man's case the highest and most comprehensive unity of being is reached when that principle which in the case of all other beings we are obliged to speak of in an obscure way as an "immanent idea," has itself become a reality; in man's case this principle is an actual process in consciousness, intelligently connecting the powers in the pursuit of an end, and thus synthesizing all the separate and otherwise disparate experiences into a unity that is both real and ideal.

The unitary being of the mind, then, — like its reality or its identity, — is not a possession independent, for its proof and

for the description of its real character, of the actual facts of consciousness. No subconscious or unconscious core of being — rigid, uncompounded, unchanging, and so constituted after the analogy of a *pseudo*-atom — constitutes this unitary being of the mind. To be one, as becomes a true Self, is actually to live, here and now, the life whose very being, and unity in being, is the becoming conscious of Self as at the same time self-active and the subject of change. And to establish that unique claim to a unitary being which runs through and binds together all the different “moments” of mental life, it is necessary to know one’s self as the self-conscious, remembering, thinking, and planning subject of a continuous course of mental development.

No one, however, need lament the loss of a hypothetical, inert, and dead substratum of unity, which neither knows itself as one nor is capable of being presented to others in terms of knowledge. The being that has this actual unifying *actus*, and has also the “promise and potency” of constantly repeating the act so as to gather into every new repetition the enrichments of being which have been evolved in past experiences, has all the unity that it needs, — all the unity, indeed, that the mind itself can comprehend and appreciate. To be one, in any other known or conceivable meaning of the word, and yet to lose this self-unifying activity, would be to lose all. And if this unifying activity can be retained, one need not care whether one is two beings or more, in any other meaning which words of number can possibly bear as applied to the human mind.

It does not, indeed, belong to the main intent of the present treatise to consider in detail the bearings of the preceding conclusions regarding the reality, identity, and unitary being of the mind. Such a task belongs rather to the philosophy of ethics and the philosophy of religion. There are, however, three *quasi*-practical remarks which follow from these

conclusions with the force of corollaries from a main proposition.

First, the reality of the human mind is not to be spoken of as though it were a sort of fixed *quantum* of being that is distributed in one lump, so to speak, to all individuals alike, and to every individual in the same measure from the cradle to the grave. Here — as so often happens — the popular figures of speech are much less figurative, much more nearly representative of the actual state of the case, than are the technical terms and discussions of psychologists and philosophers. Popular language admits of, and even encourages, the exhortation to *be a man* (a *real* mind or soul), and to become or to be *more* of a man, etc. But certain forms of metaphysics, which have been born aloof from the study of concrete human life and have allowed undue influence to preconceptions of what must be, in the supposed interest of important ethical and theological truths, represent this reality in a manner to contradict our experience of psychical changes (of “becoming more,” “growing in,” etc.). With these forms of metaphysics the mind appears as some sort of an unknowable substrate, laying equally valid claim to the title “real,” from the beginning and all the way through the development of mental life. On the other hand, modern psychology, wearying of the search after something known, presentable, and describable, which should correspond to this substrate, has turned to the cultivation of a so-called psychology without a soul. But if the old-fashioned metaphysics could find no terms, with recognizable meaning, in which to describe the reality of its hypothetical soul, the new-fashioned psychology is equally unable to find terms in which even to describe the actual psychical phenomena without some hypothesis of a real being for the soul. Both alike, when critically examined, are quite too often found to be making use of abstractions under cover of current figures of speech.

And why, if the reality claimed for the mind be that which is actually implicated in concrete experience, and is only to be

got anywhere as it is found in such experience, should we not speak of one mind as having more of reality than another? Why not speak as well of adding to or subtracting from—self-consciously and designedly or indirectly and without voluntary intent—the reality of any individual mind? In this way we should, indeed, employ figures of speech which would always need to be interpreted into terms of concrete experience. But, on the other hand, we should do away with the misleading influence of certain other figures of speech which cannot possibly be interpreted in terms of experience at all. It is of course only in a figurative way that we can apply terms of magnitude to the mind. But the proposed figure of speech is, at least, one whose real meaning is not far away from our every-day mental life; and it is one the use of which is comparatively free from injurious consequences.

Now, for any individual *to become more and more real*, or for one individual *to be more real* than another, is a kind of growth not statable and measurable in terms of purely extensive magnitude. One does not expand one's mental being as one expands one's limbs or lungs; one does not extend one's mental possessions as one extends one's landed estate. But any one may, by a process of reflection upon the basis of experience, clearly enough comprehend what it is to live a larger and yet larger mental life. Here all terms of quantity evidently have reference to the different degrees of intensity which are attached to our conscious sensations, feelings, and conative impulses. But these terms have reference also to the great differences in the variety of elements which discriminating consciousness discerns as existing in the different mental states; to the time-rate and variety of these complex mental states; and, above all, to a standard of values according to which certain thoughts, emotions, sentiments, and purposes are regarded as entitled to higher or lower places in a scale of "worth." "To live more,"—what may not this brief phrase come to mean!

After having once recognized what that is real is signified by all terms of quantity when applied to the life of the mind, we feel justified in adding that reality itself is nothing which can be affirmed of the same mind, or of two different minds, as an attachment of a fixed, unchanging kind. On the contrary, inasmuch as all mental reality consists in real feeling, knowing, and willing, and inasmuch as feeling, knowing and willing are all processes of becoming that imply both self-activity and content of consciousness passively regarded,—*the reality of the mind is, under all circumstances and forever, a reality which must be realized in its own peculiar way, in order to maintain itself at all.* Therefore, in the only meaning in which terms of quantity are applicable at all to the mind, it is not only permissible but even necessary to speak of its existence as a matter of degrees. Souls are not, as respects quantity (however alike they may be as respects quality, or the characteristics to which the word reality is attached), alike real. For one soul to be more real, as a soul, than another,—this is not simply perfectly possible, it is actual matter of fact. Only psychical beings that actually attain to making themselves real, by acts of self-consciousness, recognitive memory, and reflective thinking are entitled to be called real at all. Those who come to that which is richest, highest, best, in the life that consists of these acts, are most real of all. And all the way between them and the lowest stages of real mind-life, there exist innumerable gradations in the possession of this priceless reality.

It is clear, therefore, that the sphere of ethics furnishes both the final interpretation and the highest manifestation of the metaphysics of mind. For mental reality is not simply or chiefly a gift; it is also an achievement. The popular exhortations, to which reference was just made, have of course an ethical import; as has already been said, they embody not only the results of practical wisdom, but also those naïve and almost instinctive assumptions which so often — however unconsciously

— hit the very heart of philosophical truth. Metaphysics, on taking an ethical turn and applying itself to the life of conduct, joins the multitude of unlearned but genuine sages. It, too, in the name of the most profound and searching analysis, issues its warnings and exhortations. "Would'st thou have reality; would'st thou be real, as minds alone can be,— then win it for thyself. Think, feel, will, that which is highest and best. Live most, and thou art most real. For thou wilt never have other reality in kind than this same which thou now hast; therefore get and keep all thou canst of it. For, indeed, there *is* no other, knowable or imaginable, for a mind; and there is no other that has any *value* as estimated by the standard of mind."

Second, a similar train of reasoning leads us inevitably to similar conclusions regarding the unitary being, or real unity, of the mind. This, too, is no rigid and fixed qualification that can be assigned to all individuals alike, or to every individual man in the same measure at all stages of his development from the cradle to the grave. Here, also, popular figures of speech that are most prevalent and influential in the estimations and maxims which have reference to character and to conduct, are at the same time most true to the fundamental facts. They really set forth what philosophical analysis truly finds, much more forcefully, and with less misleading use of figurative language than do the scholastic axioms of certain accepted philosophical systems. The man of perpetually conflicting motives, of divided and cross purposes, of shifting, obscure, and irreconcilable opinions, of dominant mental and moral distractions, has not that highest unitary being of which the mind is capable. "A double man, unstable in all his ways," — he has only an inferior degree of the unity which is characteristic of mind.

In discussing this question at length, an appeal should be taken to the legitimate conclusions that follow from the actual, matter-of-fact history of mental development. From the first

this treatise has made constant acknowledgment of this method of procedure as the only justifiable method. We are not engaged in inquiring as to what the unitary being of the mind must be, or ought to be, irrespective of all experience as to what it actually is. For the metaphysics of mind, as we view the matter, is not a spinning of abstract theories out of mystical cobwebs; it is a speculative treatment of psychical facts. No advocate of psychology without a soul can reject any more promptly and decisively than do we such language as has already (p. 163) been quoted from Mr. Thompson (about "a subject Ego, whose substance is unknown and unknowable, etc."), and which was found so captivating even to an adherent of cerebral psychology like Professor James. This, and not a few other similar forms of theory, we are ready to denounce as heartily (though perhaps in different language) as — strangely enough in another connection — does this latter writer:¹ "Transcendentalism is only Substantialism grown shame-faced, and the Ego only a 'cheap and nasty' edition of the soul." For it is not the soul out of consciousness, "out of time," "eluding cognition," a foreyer "unknown and unknowable" substance (whatever such nonsense may mean), a "pure Ego," etc., in whose unity our interests are concerned. On the contrary, it is the soul in consciousness, and as a self-known subject of consciousness, — not "eluding" itself, since movement and flow of self-activity is its real life, — coming to be in time, and always being itself a time-process, for whose unity we contend. The fact of *that* unity, and its nature, we rely upon scientific psychology to establish; and its remoter implications it belongs to philosophy to set forth.

After attention is recalled to the only correct point of view, and the journey of metaphysical speculation is begun from this point of view, the difficulties may still be many; but they no longer arise from the vain effort to overleap the

¹ See again "Principles of Psychology," vol. i., 365.

limits of the knowable. They are rather such difficulties as are comparable to those of a traveller at times threading his way through deep forests and thick jungles; they certainly are not like those of a lunatic endeavoring to stand in mid-air on his own unstable head.

Now, the psychological study of the phenomena of mental life shows that the unity which belongs to the subject of the phenomena—to the Mind—is actually a matter of degrees and of development. To itself the infant is not one, for as yet it has not arrived at self-consciousness; it has not yet come to be a self-known Self. "*It*" is indeed a unity of living organism to the observer of the physical aspect of its entire life; to the observer thoughtful of the future course of its assured development as a human being, it is potentially a self-conscious, and so unitary mental being. But this unity is *potential* only. The observer, on reviewing in his own imagination the past succession of the infantile states of consciousness, may regard them as a continuity of inter-related and reciprocally dependent states, which already give token of some plan. This inchoate organization of psychoses the observer may then consider, for himself, as a low form of that unity which belongs to every continuous mental life. He may also enlarge his conception of the unitary being of the infant by projecting into the future a similar continued process of organization. But thus far, in saying that the infant is one, he only means that the infant will become one.

In the enlarged meaning of the unitary being of mind, it is only—we assert again—as the mind itself, to whom the unity is attributed, acquires and exercises the power to make itself one to itself, that it can be said really to have such unitary being. Indeed, no other attribute of mind is at once more distinctive and more completely subject to development than this attribute of unity. Clear self-consciousness is, relatively, a somewhat late development; and even more so the mental grasping together of the past as a continuous life-

history, or the actual organization of the psychoses according to a plan. Since, however, these things do regularly take place,—since the mental life actually unfolds itself according to some plan, and some degree of development in self-consciousness, recognitive memory, and reflective thinking is thus attained,—we are justified in regarding every mind from the point of view held by the metaphysics of biology. “*It*,” that is, this soul, is regarded as a unitary being all the way through, from first to last; its real unity is assumed to account for the obvious unitary character of the successive phenomena of consciousness. But the moment inquiry is raised as to what it is in which the reality of this unity consists, in so far as it is mental, and is a unity of the mind, we are brought around again to the point of view held by the actually self-conscious, remembering, and reflecting subject of all the states of consciousness. All this has, however, already been sufficiently explained.

It is also obvious that to speak of degrees of unity as belonging to different minds, or to the same mind at different stages of its development, is not only permissible, but even necessary. Indeed, the only unity which can be attributed to mind is a matter of degrees,—so far as the word “degrees” (a word of quantity) can be applied at all to mind. For the real unity which any mind attains depends upon the firmness and comprehensiveness of the grasp of self-consciousness; and upon the conscious, planful recognition and control of the mental life as under one purpose or immanent idea. As the last word of scientific psychology regarding the principles of mental life, we have elsewhere¹ called attention to the teleological import of all mental development. “Whenever the phenomena of consciousness become objects of knowledge, and so the beginnings of a science of mental life are made possible, then these phenomena appear, ordering themselves so as to attain practical ends. *Activity to some purpose*

¹ *Psychology, Descriptive and Explanatory*, pp. 668 f.

is the ruling principle of mental development. The self-conscious, intelligent adoption of a plan, and selection of means for its pursuit, is distinctive of the *acme* of man's development. The more comprehensive this plan, and the wiser the selection of means, the higher is the standing of the individual in the scale of intellectual development. But ends suggested by æsthetical and ethical sentiment seem adapted to control large spheres of human activity; and the latter especially, from the very nature of the mandate with which it sanctions the end that promises its own satisfaction, has at least a sort of phenomenal supremacy. But meanwhile the principles of continuity, of relativity, and of conscious and unconscious habit, forbid that any consciously accepted end should be isolated, as it were, from the entire life, both bodily and psychical. And when we regard the working of all these principles, in every detail of mental development, we become aware that the import of final purpose in the mental life extends far beyond the conscious adoption of ends on our own part. In other words, the stream of consciousness appears, not so much as a current flowing we know not whence nor whither, but rather as a current designed from the beginning, both as respects its observable surface and its hidden depths, — partly self-directed and partly impelled by hidden forces, — to the fit performance of a certain work. But what that work most fit is, if any such there be, scientific psychology does not investigate. In fine, a combination of all these principles, as they appear in their actual operation, secures for every so-called stream of consciousness that continuity, related action, solidarity of character, and that intelligible import as judged by the light of ends and ideals which are necessary to the history of what we call a Soul or a Mind."

Considerations like the foregoing, in which the discussions of scientific psychology terminate, have an obvious bearing on the metaphysical problem of the unity of mind. They suggest what is (though not so obviously) the truth: — it is

here again to ethics, as the philosophy of conduct, that appeal must be taken for the most profound and ultimate explanation of mental phenomena. Here again, also, the metaphysics of mind issues exhortations and warnings which are in practical accord with the familiar but uninterpreted figures of speech which the people employ. "Be at one with the laws of thy being; be at one with thyself. Would'st thou have in its highest attainable form, the unity which is distinctive of mind; would'st thou be one in that unique way which is possible for a human soul,—then make thyself to be one. Grasp together and bind into a unity of self-conscious, remembering, and reflecting states, according to some fitting and consciously selected plan, all the manifold movements in that flowing stream of psychoses which is called thy mental life. In this, thy oneness of being consists; and from it be not distracted or turned aside. For thou wilt never have other unity, in kind; therefore get and keep all thou canst of this. In gaining the most of this, thou hast gained all; in losing this, thou hast lost all. For in losing this thou hast really become far less of a unity (but rather double and divided against thyself) than it is fitting that a mind should be. And there is no other unity that has any meaning or value in the realm of mind."

A philosophy of the mind which has its basis in the actual facts of mental life makes short work of despatching certain doctrines once held as to the so-called "simplicity" and "indivisibility" of mind. As distinguished from the known identity and unity of the mind, in the sense in which these attributes of mind have already been explained, the term simplicity has no meaning and no standing in facts. Whenever it is made use of in such a way as to imply anything different, it introduces debates which have no relevancy—whichever side of them one espouses—within the realm of the philosophy of mind. And, indeed, if the figures of speech which are supposed to be conveyed by this word sim-

plicity are to be taken account of at all, it would be much more appropriate to speak of the two-foldness or the manifoldness than of the simplicity of mind. But such manifoldness, instead of being inconsistent with its self-conscious unity, is definitively necessary to any mental unity.

Still more unfortunate and foolish is most of the discussion as to the "indivisibility" of mind. The very word in such an application is well-nigh meaningless, unless it receive an interpretation consistent only with a gross and materialistic view of the subject of all mental phenomena. The word implies that the conceptions of "dividing up" or "splitting off" are applicable to mind, after the analogy of a material mass. Were this the fitting occasion, it could be shown that both the old-fashioned argument for the indestructibility of mind as growing out of its indiscerptibility, and the argument by which Kant confuted it, are alike absurd within the realm of mental phenomena. Both alike have meaning only as we admit — what never can be admitted by the observer who discusses this philosophical problem in the light of actual, concrete mental phenomena — that the analogy of a composite material mass or of a hypothetical, rigid, unanalyzable atom, in some sort at least, applies to the mind. Here all argument from analogy, into whichever of the two main directions you turn it, goes utterly wild; and this for good reasons, since there is really no analogy upon which to base an argument.

In close connection with this view of the unity of the mind stands, of course, the third of the conclusions to which the previous metaphysical discussions lead. If there be any immortality of mind, it is just this, — the continuance of a self-conscious and recognitively known life-development. Without continuity of actual memory, of characteristic selfhood, it is not *mind*, but something far different from mind, and indeed contradictory of it, which is conceived of as immortally existent. Hence — it might be argued, if the discussion were to be carried over into the philosophy of religion — the character

of the mind's immortality must depend upon the mind's present character. The mind's future must somehow, by actual acts of self-consciousness, recognitive memory, and reflective thinking, be brought into an organic solidarity, as it were, with its present and with its now past, in order that the *same one* mind may be said to continue to exist at all.

CHAPTER VII

MIND AND BODY

THERE are few questions for the discussion of which it is more essential to fix and maintain clearly defined points of view than the question of the relations existing in reality between the mind and the body. Current theories, and especially those of the monistic or materialistic order—it will be shown subsequently—too often confuse the discussion by shifting frequently the point of view, in a furtive and concealed way. Particularly true is this charge with reference to two classes of topics. One of these concerns the right relations of psychology and metaphysics in dealing with mental phenomena,—a topic considered in detail in the first two chapters. The other concerns the understanding and use of the so-called “principle of causation.” Criticism and polemic directed against the method of these current theories will be, for the present, largely excluded. Our purpose in this chapter is chiefly to define the right points of view with reference to these two classes of topics.

The only safe way of procedure in discussing the relations, in reality, of body and mind is that which has been followed in the discussion of all the problems undertaken hitherto. The facts—and not one class of them to the relative or absolute exclusion of other classes, but all the facts of every kind—are to be observed and explained so far as it is in the power of scientific psychology to accomplish this. Upon the basis of such scientific generalizations the edifice of the more speculative and ultimate answers which philosophy gives to the same problems may then be erected. We have confidence

in the science of psychology — imperfect and largely tentative or immature, if you will — as already existing and capable of indefinite improvement by work along the present lines of research. But we believe also in the possibility of a metaphysics of mind. Above all, however, do we believe that this metaphysics should base itself upon science; and that the particular science thus trusted and employed by the metaphysics of mind should be the science of psychology rather than a *pseudo-science*, that finding itself without the right of reliance upon clearly ascertained psychological facts falls back upon the use of misleading analogies from physical science.

It follows from this general position that neither in the study of the phenomena and in the more immediate inferences from them, nor in the application of the principles of general metaphysics to the particular problems in hand, should the investigator be one-sided. If he displays a confidence in his ability, as a novice and uninstructed, or as an intelligent and well-trained metaphysician, to know *that* the brain really is, and *what* it is, and what are the “causal energies” that it exerts in determining phenomena of consciousness, he must not abjure all confidence in a similar ability when the metaphysics of mind is under discussion. Surely the gulf which faith or intuition or inference must leap, in order to land upon the solid ground of reality, is no wider when what is called *soul* is on its other side than when what is called a *brain* is there. This kind of consistency in both science and metaphysics is, however, no less rare than precious. In fine, if the so-called science is to end in the simple correlation of phenomena as bare matter of fact, why then let it be consistent, and correlate in all the directions in which the phenomena lead; and then leave the matter there. But the metaphysics of Monism or of Materialism is then to be excluded as strictly as the metaphysics of Dualism or of Spiritualism. If, however, we are to trust ourselves to vali-

date critically, or even to postulate uncritically, any metaphysics whatever, why then, too, let us be consistent in this regard. Let us consider without prejudice which of the several forms of metaphysics best accords with the thorough speculative treatment of all the phenomena.

The same intelligent consistency is demanded in the interpretation and use of the principle of causation. If from the point of view which notes merely the uniform modes of the sequence of the phenomena, one speaks of so-called mental states as being "determined" or "influenced" or "caused" by antecedent states of the body and brain, then on precisely similar grounds of observation one has absolutely no right to refuse to apply the same terms to the relations of the two classes of states when the order of sequence, as phenomenally apparent, is reversed. In other words, one must not hesitate to speak in such a case, of states of body and brain as "determined," "influenced," or "caused," by antecedent mental states; and there should be no shuffling of the meanings of these terms, so as to suit convenient shiftings in the points of view.

Here, too, the crimes against consistency, which the current discussions of body and mind commit, are as mischievous as they are numerous and great. The so-called principle of causation itself is so complex in its character, and so shifting is the conception answering to it in different minds, as to make complete consistency difficult indeed to obtain. Suppose, however, that a certain writer assumes to discuss the relations of body and mind from a purely non-metaphysical standpoint, and yet makes use of the principle of causation, — since, indeed, without some use of this principle no discussion of any kind of relations is possible. Such a writer is plainly bound to interpret and to use the principle itself in a non-metaphysical way. He must — that is to say — consistently maintain, in whichever direction he views these reciprocal relations, the point of view held by the baldest phenomenalism.

From this point of view nothing can ever be known but the (immediately obvious or legitimately inferred) uniform sequences of the phenomena. Never once must such a student of the relations of body and mind allow himself to speak or think of either body or mind as really existent entities, and so, as entities to be regarded in the light of a *fons et origo* of the phenomena. Much less must he suffer the conclusion that both classes of phenomena indicate the existence of some one entity whose two-sided being they respectively reveal. For such a conclusion, too, implies a metaphysical import to the principle of causation. But to enforce such limitations is to debar all investigators from having any philosophy whatever upon the subject; one can then neither, in consistency, be Monist or Dualist, Realist or Idealist, Materialist or Spiritualist, in respect of the metaphysics of mind. Furthermore, it is difficult to see how, without passing through some metaphysical assumption that shall seem to furnish a unity of real being in which the seemingly divergent streams of phenomena may unite, there can be any talk of a strict "correlation" (as distinguished from more or less uniform "sequences") of bodily and psychical phenomena.

It is, then, not difficult to see what is the only logical outcome of such an interpretation and use of the principle of causation as the foregoing. It is the most thorough-going solipsism; the very conclusion from which we saw (pp. 33 f.) M. Flournoy flying back with horror, though borne on the wings of an uncritical sentimentalism. If the principle of causation, we repeat, is to receive only a non-metaphysical and purely phenomenalistic interpretation, then the only known phenomena must be regarded as psychical; and the only psychical phenomena knowable are my present phenomena. No talk about a body *as though* there were any such real existence is permissible. Nor must the psychical phenomena themselves be related to an *Ego* as their really existent ground or cause; for this, too, would be to make an

unwarrantable metaphysical use of the principle of causation. The so-called science of the relations of body and mind, then, becomes limited to statements of observed or inferred sequences between two classes of phenomena; and both classes are alike psychological, not only in respect of their characteristics, but also in respect of their reference to the logical or phenomenal (not real) subject of them all. In pointing this out we are only calling attention to what the history of philosophy has repeatedly verified, — namely, *that consistent phenomenalism ends in a form of idealism which is itself intrinsically unthinkable and absurd*. And how could it be otherwise, since phenomenalism begins by denying the full import of the primary facts of knowledge?

Neither can it be admitted that the conceptions of causation which are current in the domain of physical science are to be introduced into the discussion of the relations of body and mind, without binding ourselves here to a complete consistency. This remark applies, of course, to every form of theory which recognizes the so-called law of the “conservation and correlation of energy” as applying, either positively or negatively, within the sphere of these relations. The law itself may, however, be held either in the interests of an alleged phenomenalism or in a more or less metaphysical way. But whichever way the investigator understands the law, if he endeavors to discuss the relations of body and mind in the light of this law, — and this whether his main endeavor be to show the absurdity of attempting to apply it to *such* relations, or, on the other hand, to enforce a stricter or a looser application of it, — he is bound to logical consistency.

Suppose, then, that the phenomena with which psychophysics and physiological psychology deal be approached by the avowed phenomenalist with a view to see whether they, too, can be brought under the law of the conservation and correlation of energy. How is such an investigator bound to understand this very law, — with its obscure terms, such as

"energy" ("stored" and "kinetic"), "conservation," "correlation," and the like? Plainly in no metaphysical but in a purely phenomenal way. He cannot abjure all other metaphysics, and yet accept the metaphysics implied in the law itself, and still maintain his consistency. Now, this law of the conservation and correlation of energy, when stripped of all implied metaphysics, becomes itself only a summary statement of uniform modes of sequence which have been observed between certain classes of physical phenomena, as alike capable of being brought under some form of measurement. Quantitatively considered, the phenomena called gravitation, heat, and possibly light and electricity may, under certain frequently recurring similar relations, be expressed in terms of mathematical formulas. Valid grounds exist for the hope that continued and more successful researches may at last demonstrate that the same thing is true of other classes of phenomena, the formulas for whose quantitative relations cannot at present even be conjectured with any degree of assurance. Moreover, there arises in the mind the entrancing ideal of a scientific determination of all actual and possible quantitative relations between all manner of physical phenomena; and it is assumed that the formula for all this, could it ever be written out, would be unchanging for all the varying conditions and eras of the world's development.

Now, the most ardent devotee of physical science must confess, however, that our knowledge of the particular modes of behavior which individual things, or species of things, develop under particular complex sets of concrete relations is, on the whole, just at present far outstripping our advance in the acquirement of the necessary mathematical formulas. For example, modern biology, chemistry, and even molecular physics are disclosing to observation so many new and wonderful facts that the arm of mathematics is relatively far behind where it was a century ago in its power to handle them. And perhaps, after all, this ideal of a universally ap-

plicable and unchanging formula for the expression of the sum total of quantitative relations among all classes of physical phenomena is illusory. For is not the conception of development coming more and more to the front? And does not this conception, perhaps, necessitate the application of certain truths, to which the science of life invites us, to the entire course of physical affairs? And may it not prove to be true that those qualitative changes which the theory of evolution emphasizes will be found to be incompatible with this lower ideal of a machine-world that is always theoretically manageable in terms of mathematics? If all reality be a progressive manifestation of life (although, of course, the consistent adherents of phenomenalism are forbidden to suggest this), may not the explanation of the sequences of even physical phenomena compel us to admit quantitative increments as connected with the qualitative changes necessary to this manifestation?

If, now, the advocate of the universal applicability of the law of the conservation and correlation of energy to physical phenomena, who is at the same time consistent in his refusal of all metaphysics, arrives at the point where he must make a scientific study of the relations of body and mind, to what course does his reputation for consistency bind him? Plainly, he cannot refuse to acknowledge the apparent applicability of the law to these very relations, because of the supposed great (or possibly complete) difference in the two kinds of beings between which the relations exist. For he has no right to know anything of "beings" with natures so different that quantitative relations capable of being brought under the general law cannot exist between them. He can know nothing of "kinds of beings." He must always, in consistency, approach the phenomena as only phenomena. But as long as this is done, the first impression is, especially if one give one's self up without prejudice to the investigations of psycho-physics, that quantitative relations *do* exist between physical and mental phenomena. This, when translated into

the figurative language of that metaphysics which physics naïvely employs, amounts to saying: Possibly, it is no more unwarrantable to speak of "energy" being "stored" in the mind, and "transmitted" between mind and brain, than to speak of the same metaphysical transactions within or between two masses or molecules of matter. From the point of view of pure phenomenism, there would seem to be no impropriety in such language. On the contrary, it is suggested and even enforced by the phenomena. *Felt changes in the intensity and extensity* (and these are both measurable aspects or quantitative characteristics) *of the phenomena of consciousness, are, as a matter of fact, connected in the form of more or less regular sequences with observed changes in the amounts of the bodily changes.* It does not follow, however,—and this the strictest adherent of the law of the conservation and correlation of energy has no right to assume,—that the mathematical formulas for these quantitative relations, could we discover them, would have the same fixed and regularly recurrent application as that which belongs to quantitative relations between physical phenomena.

It is only when metaphysics, critical and self-conscious or naïve and uncritical, comes in to disturb the purity of one's phenomenism that the difficulty of applying the law of the conservation and correlation of energy to the relations of body and mind becomes oppressive. And the degree of this difficulty furnishes a very good measure of the necessity for applying a careful metaphysical analysis to the very law itself. The greater and more oppressive the difficulty, the more imperative the necessity. In other words, what we, above all, want to know, when the relations of body and mind are discussed as though the law of the conservation and correlation of physical energy had anything whatever to do with the discussion, is this: What is the meaning, as signifying aught that really is and that really occurs, of this same law? What do things actually do when they act under the law,—when they

“conserve energy,” “transmit energy,” and behave in accordance with the alleged “correlation of energy”?

When such a question as this is taken to the very most determined, the fiercest and most uncompromising advocates of the empirical law, only very unsatisfactory replies are received. Many of them at once deny that the law, as they understand it, has any metaphysical reference, even in the sphere of physical phenomena; that is to say, they fall back into the position of phenomenalism. Let these very persons, however, be summoned, in the congenial company of their law, to face the phenomena which are popularly supposed to signify an interaction between body and mind, and they are at once shaken out of this position. They quite invariably refuse to allow the law to apply to mental phenomena as such, or to the relations between mental phenomena and bodily phenomena. They think it shocking, not to say ridiculous, to speak of the energy of the nervous system as being transmitted to the mind, or stored in the mind, etc. But this, as has already been seen, is because they cannot avoid giving some real import to the figurative terms which the law employs. For in the relations of the phenomena, considered *merely as phenomena*, no reason for any such shock or feeling of ridicule exists. Moreover, it requires little inspection to establish the conclusion that, even when they are speaking of the conservation and correlation of energy as obtaining among physical phenomena, they suppose themselves to be laying down a law that governs the actual relations of real things. They are, in truth, speaking as metaphysicians, however warmly they may claim to be abjuring metaphysics. And no amount of the verbal and logical twistings and squirmings customary in the treatises on physics which touch upon this subject serves to withdraw their authors from the all-devouring maw of a metaphysics more critical than their own.

When, then, any writer on the metaphysics of psychophysics, any advocate of this or that theoretical construction

of the relations in reality between body and mind, makes use of the physical law of the conservation and correlation of energy, either to establish positively his own theory or to confute the theory of an opponent, we have a right to know how he understands the law itself. Does he consider that physical energy, about the conservation and correlation of which he reminds us so often, is some sort of an entity which can literally "seat itself" in things, or which can actually "pass over" from one thing to another? Is "stored" or "potential" energy to be regarded in the light of an entity caught and literally locked up, or packed away, in some physical mass or molecule or atom? And when it becomes "kinetic energy," has some real entity broken out of its prison-house and begun again to move afield? Certainly it is not such transactions as these which physical science conceives of as taking place in reality, and as representable to our thought and imagination, under its so-called law of the conservation and correlation of energy. Yet again must it not be confessed that some sort of real transactions, some principles actually obeyed by really existent things are thought of, or imagined, as signified by this law? And until we know what they are, how can we affirm or deny the applicability of the law to relations between two beings phenomenally considered so unlike as are the body and the mind of man? Or perhaps it ought rather to be said, How can we refuse to consider favorably the proposal to apply this law to these relations, when, phenomenally considered, the body and the mind are known to be so closely correlated? Perhaps too, we affirm again, it might turn out no more absurd to speak of energy as stored by the mind, or set free from its seat in mind, than to employ similar terms for physical masses and molecules, — if only in either case we could know what this "storing," "seating," and "setting free" really means, and what that is really existent answers to the term "energy" as applied either to physical or to mental beings.

In seeking for light upon this obscure subject of the causal relation between mind and body there is no other safe and hopeful method of procedure than to appeal to a philosophy that bases itself upon the descriptive and explanatory science of mental phenomena. Such a method of procedure leads us at once to the study of the origin, nature, and development, psychologically, of the conception of causation itself. This study we have elsewhere¹ undertaken; and from its conclusions we here quote several passages. Psychological science "simply finds conative consciousness given as an undoubted factor in determining the amount and direction of attention, the control of the mental train, and of the movements of the bodily organism. As *psychological* science, our investigation accepts this ordering of phenomena; it is no less fundamental and conclusive than are those data upon which physics strives to establish the principle of the conservation and correlation of energy. Moreover, all the information which cerebral physiology can furnish regarding the processes that accompany or (if one please) underlie conation, — volition, striving, etc., — consist only of conjectural preconditions for this primary and indubitable psychological fact. [We turn aside barely an instant to affirm that the more acute and prolonged metaphysical analysis becomes, the more clear is the conviction that the most highly developed notions of 'Reality,' 'Cause,' and 'Energy' ('conserved' and 'correlated'), within the physical realm, are themselves dependent upon this very datum of conation, or active consciousness, belonging primarily to man's mental life. These notions cannot consistently, therefore, in the name of so-called physical science, deny the existence and validity of the psychological fact on which they all repose.]"²

"The conception which answers to the term 'causation'

¹ Psychology, Descriptive and Explanatory, chapters xi. and xxi.; and comp. pp. 482 ff., and 519 ff.

² *Ibid.*, p. 215.

is on analysis actually found to be a very complex conception. Causation is, psychologically considered, not so much a single category as it is significant of conclusions that involve the foundation and mental grouping together of a number of conceptions, each one of which is often, separately considered, called a category. By this it is not meant simply that different minds concretely realize this conception in widely different ways, as is the case with the conceptions of space and time. On the contrary, so far as image-making activity enters into the conception of causation, the form of such activity is pretty strictly alike for all individuals. And this form of imaging the so-called category of cause is instructive as respects the nature and origin of the conception itself. Now, what we do all actually experience in trying to get a lifelike idea of the meaning of our judgment — ‘*A is the cause of B*,’ — is *the process of mentally representing our own experience, whenever self-conscious conation, with its feeling of effort, is followed by observed changes in our presentations of sense, in a regular way.* That is to say, it is consciousness of the sequence of willing, saturated — as it is — with its accompanying sensations and feelings of both peripheral and central origin which is evoked by the wish to realize the meaning of the word ‘cause.’”¹

“But what a nest of complex conceptions is involved in such a judgment as this (namely, ‘*A is the cause of B*’)! Some of them, at least, are much more nearly fundamental and simple than is the conception of cause. For example, the conceptions of Being, Action, Relation, Time, and Reason, or Ground, are all plainly involved in the foregoing judgment. Others, such as Unity, Identity, and even contiguity in space and priority in time, seem also to be involved. But as Dr. Ward has correctly maintained, ‘Action is a simpler notion than causation, and inexplicable by it.’”² Now,

¹ Psychology, Descriptive and Explanatory, pp. 501 f.

² Article “Psychology,” in the Encyclopedia Britannica, p. 82.

of course, action without a being that acts is an absurdity. Being too, then, would seem a simpler notion than causation. Moreover, Relation (whether causal, or merely in space or in time) is also a simpler notion than that of causation. . . . When *we act*, by way of conscious conation and muscular effort, then changed presentations of sense follow; and *vice versa*, when certain presentations of sense indicative of certain relations of other beings to us occur, then *we suffer* certain conspicuous changes in the content of consciousness. *It is the projection of our experience with ourselves into the world of related things, under the impulse of the intellectual demand for explanation, which results in the general notion of causation."*

In tracing and illustrating the details of the development of this notion we have in the same connection also said:¹ "Only scant study of consciousness is needed to reveal the baffling complexity of men's thinking, when they so glibly use that cluster of expressive terms which is connected with the term 'causation.' This fact is most evident with those who are farthest advanced in the conceptions which enter into the modern developments of the natural sciences. The physicist is far less able to tell what that is real he means when he speaks of energy as 'conserved' and 'correlated,' or the chemist when he declares that atoms of one element 'attract' those of another element, than is the unscientific observer when he speaks of the 'influence' which one thing has 'over' another, or of the 'action' of one thing 'upon' another. In all cases of alleged causation it is evident that, psychologically considered, we are dealing with the results of the entire complex growth of knowledge; and thus our attention is called to the important truth that it is impossible to speak of the conception of causation without implying that the stage of knowledge—as the complex resultant of the development of all faculty—has already been attained.

¹ Psychology, Descriptive and Explanatory, pp. 504 f.

For it is real beings, as known to exist and to behave in manifold relations of time and space toward each other, that are conceived of as causally connected. As we shall see later on, *it is our belief in such connected and interdependent existences, which is chiefly necessary in order that thinking may end in knowledge.*

“Certain lower and non-intellectual activities of the mind may be considered as subservient to the development of the complex conception of causation, although of themselves unable to account for its development. This is true even of the instinctive, the imitative, and the sensory-reflex classes of psycho-physical activities. By such activities our own psychoses are, both actively and passively, connected together in consciousness, and these, as known in self-consciousness, are connected with those psychoses which we have learned to attribute to other beings than ourselves. Especially does every painful or pleasurable sensory-motor experience stimulate our inquiry and interest in drawing conclusions as to its cause. . . . Every such experience emphasizes a connection between doing something, or not doing it, and certain definite pleasurable or painful consequences. . . . Thus all the awakening desires serve as a sort of interior pressure upon the motor organism; they constitute an almost ceaseless invitation and compulsion to the doing or to the avoiding of this or that. Imitation, too,—at first blind and instinctive, and afterward more purposeful and intelligent,—establishes other connections between what is done by the child and what is more passively experienced. . . . Indeed, *it is in the use of the muscles, as dependent upon conation and in association with the feeling of effort and with various forms of pleasurable and painful feeling, that the conception of causation has its birth-place, so to speak.* Certainly, mere observation of the uniform sequences of images under the laws of association of ideas would never serve to develop this conception; only as being ourselves self-conscious agents and sufferers do we

come to argue about 'energy' and 'causation' in the world of things.

"All the language of child-life and of the common people confirms the truth of our view of the so-called category of causation. It is only when the child has developed a somewhat complex knowledge of itself as a being that can do something, and by doing can attain its purposes in changing the relations, to itself and to one another, of external things that it begins to use terms implying the dawning conception of causation. The development also of this conception is dependent upon the development of the consciousness of Self." (Here follows a lengthy quotation from Preyer¹ in illustration and support of this view.)

If this subject is considered still further from the psychological point of view, it appears that "the next stage in the development of the conception of causation is chiefly dependent upon experience with those beings, other than himself, which promptly react upon the child and cause him feelings of pleasure or pain. One important class of such beings is the animals,—especially, of course, the domestic animals, with which he becomes most familiar,—and above all, his fellow human beings. The bearing of such experiences is made plain in sentences like the following: 'I kicked the dog, and the dog bit me;' 'I hit the boy, and he hit me back,' etc. Here the principle of causation is illustrated in double form, as it were,—both as consciousness of motive and consciousness of energy,—followed by important changes in presentation-experience. In such experiences, the basis in sense and imagination for that act of intellectual projection which creates out of the object of sense an acting agent like myself is abundantly supplied. From such experiences it is but a step to the attribution of causal agency to all things that manifest signs of life. . . . The phenomena of nature . . . are assigned to unseen agents imagined to exist and to act after the pattern

¹ The *Mind of the Child*, The Development of the Intellect, pp. 191 f.

suggested by the self-knowledge already obtained. . . . Inorganic things that act promptly and intensely upon us, or by the use of which as instruments we effect our ends, are similarly regarded. 'The poker *makes* the fire burn ;' and, if the poker is of wood, 'The fire *burns* the poker up;' but if the poker is of iron, then 'The fire *makes* it red,' etc. To quote again from Dr. Ward: 'When we say *A* causes this or that in *B*, we project or analogically attribute to *A* what we experience in acting, and to *B* what we experience in being acted upon,' — and this 'long before we suspect that this relation is a permanent one or must recur again.'

"It is by the development of experience under the principle of the association of ideas that, in large part, we are determined as to what changes in *B* shall be attributed to antecedent or concomitant changes in *A* as their 'causes.' It is under the same principle that the connections of the past are made to furnish rules for expectation as to the behavior of things in the future. All our conceptions of things summarize the judgments of our experience with the individuals of the class to which the things belong. We judge things to belong to classes, and to be entitled to names, according as they have behaved themselves in definite relations to other things. . . . New experiences constantly confirm, or break up and readjust, the old associations; but the law of associative reproduction remains the same throughout all our development. Thus instead of stating the so-called law, 'Like causes have like effects,' it would accord with the facts of consciousness better to say: 'The same beings may be expected to behave, under the same circumstances, in a way similar to those known things which they most resemble.' 'Associations remain what they are so long as they remain at all.' Upon some such impression as this concerning the 'uniformity of nature,' our safety and very life daily depend. The impression may be said to be 'rubbed in' to the very texture of skin and muscles and joints and bones. Beware of snarling dogs, of falling

stones, of blazing fire, of sharp knives, of bright lightning, of deep, swift currents, etc. One experience with these agents is enough to know what they will do; custom established by repetition is not necessary here.

“But association of ideas, working upon the basis of our experience with ourselves as agents, and resulting in an analogical projection of this experience upon all other things, is not alone a satisfactory guide in determining what changes in *A* cause this or that particular change in *B*. This is rather an inquiry in which *intellect*, as applied to reality, chiefly exercises itself; and it is conducted by those processes of reasoning which, if successfully concluded, result in science as explanatory of the world of events in their causal relations.”

For a more complete understanding of these processes and their results in establishing a system of causal relations that may claim the name of science, a study of the psychology of the intellect is necessary. This study, as we have also elsewhere¹ shown, brings us to the following positions: The essence of intellectual activity, in all its higher forms, is thinking; and the essential expression of all processes of thinking is the so-called judgment. Now, “very early in the development of intellectual life appears an important but much neglected form of judgment, which attributes action to an agent. When, in the consciousness of the infant, the proposition, ‘The milk is hot,’ expresses a true judgment as distinguished from a mere association of representative images, it is this form which it assumes. Such a proposition does not so much mean, ‘That-thing-there-whose-name-is milk has the quality of hotness,’ as ‘That-milk-here burns (or will burn) me.’ In fact, from the very beginning of intellect onward, the judgment, ‘This or that person or thing is doing this or that’ (behaving in a certain way, or affecting somehow another person or thing), may be

¹ Psychology, Descriptive and Explanatory, pp. 448 f.

said to be the predominating form of judgment. It is to this form that attention is attracted most strongly; and around its truth or falsehood our interests cluster most thickly. This fact is the analogue, in the higher regions of mental life, of the fundamental psycho-physical fact that sensations of motion are relatively effective, even with low degrees of intensity.

“ Out of this common root, in connection with the preceding forms (judgments of *resemblance* or *difference*, and judgments recognizing relations of *space* and *time*), develop those judgments which may properly be called most ‘metaphysical’ in their intent. Such are judgments of attributes affirmed or denied of a substance, judgments of cause and effect, and judgments of design adapted to an end. Even those judgments which are sometimes called ‘judgments of subordination,’ and in which species is brought under genus and parts under the whole (whether with the scientific end of classification, or with the æsthetical end of a pleasing proportion), are largely dependent upon the development of this form of thinking. For every intellect knows itself as only active, as ever doing something, as ever effecting some change; and every intellect is necessarily (not that of the child or savage more truly than that of the man of science or the philosopher) anthropomorphic. *The intellect can understand the world only as a system of related beings, which are ever — each one — doing something and having something done to them.*”

If, now, the operations of intellect are followed in those more elaborate processes of reason which result in the formation of the body of science, we see how “it is under the form of judgment which attributes *action* to an *agent* that inferences in the line of cause and effect originate and develop. In essentially the same form do we find the intellect of man concluding with respect to interacting forces and to laws. For the conception of force (or energy) is inseparable psychologically — at least in its origin — from the consciousness of conative activity. The conception of law, too, is

primarily that of the mode of the behavior of some agent. Under these two relations ('force' and 'law'), which are so subtly intermingled both in reality and in mental apprehension, a wide field of conclusions, otherwise closed even to the mind's entrance, is mastered. For who does not see that those words so glibly used by physical science have reference to presuppositions that quite outstrip the data hitherto discovered in our description and explanation of the phenomena of consciousness? . . . Whenever one sees certain signs of force (movements, changes), one immediately concludes the existence of an agent with the force necessary to produce them; when one believes in, or knows, the presence of an agent with the necessary force, then one concludes that signs of the agent's force have manifested, or will manifest, themselves. In this way *every perceived change* (or effect), *P*, is *inferred to be due to the action of some agent, S, for the reason that M, which is the known common sign of S, is connected with P; therefore P—the cause of which affords the problem to the mind—is a case to be attributed to S.*"¹

"An elaborate employment of reasoning faculty is undoubtedly necessary in order to form the conception of 'causation;' and a yet higher development is marked by the attainment of clearly defined notions respecting the meaning of such terms as 'agent,' 'self-activity,' 'doing,' and the like. But, on the other hand, one principal form of logical conclusion is itself developed along the line of this conception. This is simply a case of the intellect following the laws of its own evolution without any corresponding development of the consciousness of the existence and significance of these same laws. For in every form of mental life we *do* without knowing *what* we do. Very early in his mental growth the child begins to explain to himself the more noteworthy events in his experience by attributing them to the doings of things or persons, not hitherto associated with precisely these same events. *Such*

¹ Psychology, Descriptive and Explanatory, pp. 472 f.

intellectual activity constitutes a beginning of ratiocination along the line of causal influence. . . . This problem is not, however, statable in the terms, 'What is it?' but is rather to be expressed in the question, 'What person or thing did this?' It is essentially the same general problem with which all science chiefly occupies itself,—namely, 'What are the causes of this event (the forces operative, and the laws under which they operate)?'

"It is chiefly by this kind of ratiocination that we transcend the limits of the present, and bring its experiences into permanent and rational connections with what is remote in space and time. Thus the present becomes related to the past, not *merely* by way of recognitive memory under the laws of association, but as finding in that past the reason, or ground, why the present is as it is rather than otherwise; *what is present in time is explained by what was past in time.* Similarly, too, is the event present in space explained by some agent, invisible on account of its remoteness, or on account of its being by nature not adapted to appreciation by the senses. For it is the same intellect, behaving in essentially the same way, which puts spiritual 'powers' in the air, sprites and fairies in the green wood; introduces ghosts or other 'telepathic' influences to account for changes whose causes are not sensuously manifest; and which theorizes as to 'luminiferous ether,' 'atomic entities,' with a variety of 'natures,' etc. All such beings are alike 'concluded to,' because neither perception nor memory alone enables us to explain the present happenings by agents whose connection with these happenings is matter of presentative experience."¹

Still further does this very principle upon which the intellect proceeds in its processes of reasoning become "analogically projected" and made a principle of the being and behavior of things. This principle of intellect, psychologically considered, is the so-called principle of "sufficient reason."

¹ Psychology, Descriptive and Explanatory, pp. 475 f.

Of it three things must be noted: "(1) By the principle of sufficient reason is obviously meant *the natural tendency of man, as a developing intellect, satisfactorily to explain his experience*. This is really, then, not an abstract principle at all, as is the principle of identity; it is rather, primarily considered, an exhortation arising from the depths of our intellectual life. (2) All the explanation which intellect demands and pursues in the interests of its own self-satisfaction involves the relating of one object to another, of one event to another, etc. *Everything is explained by being brought into connection with something else*. We understand *S* only when we bring it into connection, by an act of judgment, with *P*; and since such relating can be direct only to a very limited extent, we explain *S* in relation to *P* through *M*. Thus *S*, *M*, and *P* all explain each other; they are all apprehended as belonging to one world of connected objects and events. For (3) the *belief* that such a world exists, and that we may know it as it exists, not only by becoming immediately aware of it in perception and self-consciousness, but also by processes of ratiocination, *lies*, like a sleeping postulate, *beneath all the activity of mind according to the so-called principle of sufficient reason*. . . . The so-called 'law of causation' is only the objectification, as it were, of the principle of sufficient reason. Its meaning, in general, is to assert our confidence that things *are* really connected as we find ourselves having 'reason' to *know* or *believe* that they are. . . . The entire phrase, then, should be held to be significant of that perpetual development of the life of intellect which results in giving a higher unity to knowledge; a more complex and well-principled organization to experience; a more comprehensive grasp on the world of known objects and events, as a system of beings with so-called 'natures,' acting under law and possessing 'forces' and 'powers;' a wider theoretical and yet logically defensible outlook over the invisible realms of distant times and spaces, and of entities that cannot be made

the objects of perceptive experience. Thus our 'reasons' become more nearly ideally 'sufficient,' according as the development of intellect itself, on the part of the individual and the race, goes on."¹

But, once more, what would happen if modern physical science were to succeed in the effort, which it is so inconsistently and blindly making, to eliminate all the metaphysical elements from its conception and use of the principle of causation? We may understand the answer to this question when we understand that *psychologically considered, this conception itself then becomes nothing but a barren and empty abstraction derived from the very concrete and real experiences the plain import of which it is suborned to deny.* For, as we have elsewhere said,² "The superstructure of so-called *a priori* knowledge, or assumption, which modern science has built upon the principle of causation is, at least psychologically considered, utterly indefensible. We do not naturally or necessarily believe — much less know — either the permanency of matter and of force in the physical universe, or the truth of the judgment, 'Every event must have a cause.' But we do, as reason develops, seek constantly more adequately to explain; and we explain on a hypothesis which results from our attributing to the world of things the same kind of relations which we perceive ourselves sustaining to it. To be a cause is 'for one being to do something to some other being,' as we might popularly say. Conceptions like those of the universal reign of law, of the unity of matter and force, or the regularity and uniformity of nature, etc., are all a later and yet more highly complex development. These never are, and never can be, *psychologically considered*, anything more than hypotheses introduced by intellect in the interests of a more complete unification of experience.

"Finally, that conception of causation which modern science

¹ *Psychology, Descriptive and Explanatory*, pp. 485 f.

² *Ibid.*, pp. 503 f.

has enabled us to develop is still less lifelike as a matter of imagination, and still more abstract as a matter of intellect. The scientific study of nature induces the feeling that we are unwarranted in attributing to things a kind of relation which we can concretely realize only in terms of our own conation and feeling of effort, followed regularly by changes in presentations of sense. This is to regard nature, we are told, in altogether too 'anthropomorphic' a fashion. What science then does is to extend the more purely thought-elements of this conception. In doing this, however, we are in some sort no less anthropomorphic. Only, *we now attribute the laws of intellection* — that is, the forms of thinking which connect conclusions with judgments as finding in them their 'reason' and ground' — *to the behavior of things*. Treated thus, the conception of causation loses all its concrete lifelikeness, and becomes a pale abstraction which answers to some such postulate as that 'every event follows some other event according to some uniform rule.' Yet even here, however much the effort may be made to escape it, conceptions which have their origin in our universal experience with ourselves constitute all the reality of that thinking which answers to the principle of Causation. In how far these psychological facts bear valid testimony to the general postulate or conclusion that the real world is indeed rational, and that reality answers to human reason in its constitution, it belongs to philosophy to inquire."

In brief, "*all events are regarded as having their ground in other events, and these other events in still others,—under the influence of that demand for explanation in the interests of a progressive unification of experience which is the law of the very life and growth of intellect itself*. It is this intellectual necessity to explain, we repeat, that gives to the so-called law of causation the necessity with which it appears to rule the world of things. At any rate, such is the last word which psychology can utter upon this subject. It must be left to philosophy to show that in its supreme scientific form the

conception of causation implies the confidence of the mind that the world of real things and real events *is* an intellectual order; and that in knowing it under the general principle of causation, mind is reorganizing its own forms of behavior in the behavior of things.”¹

So lengthy a consideration of the psychological (leading up to and involving the metaphysical) origin, nature, and development of the conception, and of the so-called law or principle of causation is amply justified in this connection. For one's critical opinion on these points, if intelligently formed and consistently adhered to, determines one's position with reference to the relations of body and mind. Does the inquirer into the import and the reality of these relations turn out to be a Monist or a Dualist, a Materialist or an advocate of the spiritualistic tenet? This, if the inquiry be logically and honestly conducted, will depend almost wholly upon the view he takes of “causation.” The view which has just been advocated, as alone psychologically defensible, may now be briefly summarized, as it applies to the case of body and mind, in the following particulars.

And, first, the actual, concrete, and living experience which gives birth to the conception of causation consists in the reciprocal dependence of those phenomena which are assigned, respectively, on the one hand to the body, and on the other hand to the mind. In a word, it is here, in the relations between body and mind, as actually experienced, that the notions of being a cause, or of being effected, chiefly originate.

But, second, this conception of causation, even in its most immediate and original form, is a complex affair. It implies the development — either antecedently or more nearly *pari passu* — of the conception of self-activity, of being an agent, of doing something, of effecting some manner of change. It involves also the supplementary conception of suffering some change, of having something done to us, of being “subject

¹ Psychology, Descriptive and Explanatory, p. 507.

to" some other being, as well as of being "the subject of" some action of our own. It involves, further, the conception of a relation of dependence, — a feeling (at first obscure and vague, no doubt), and a cognition (itself subject to development under the growing power of intellect) of dependent connection between these same two classes of phenomena. These, and all the other elements of this conception of causation, originate in our actual and concrete experience of the relations of body and mind.

Third, this popular and universal conception of causation is metaphysical from the start; and it is always so, until it is theoretically stripped of its metaphysical import by processes of abstraction that take it farther and farther away from reality and from life. It is a conception which cannot be formed at all without the knowledge of ourselves really being, really acting and being acted upon, of actual psychical energizing and suffering; and all these conceptions are themselves due to the metaphysical working of mind. Here, again, it is these two beings, body and mind, in whose reciprocally determining activities and changes, and in our actual living experience of them, the conception of causation first originates. The so-called scientific conception of causation as merely a quantitative relation (capable of being stated in mathematical formulas) between uniformly sequent phenomena is, so far as it is non-metaphysical, a partial and scholastic conception. It is void of reality, unwarranted by life.

Fourth, the conception of causation is applied to the concomitant or successive changes which go on in other things, through a secondary and analogical projection into them of our experience with ourselves, as both body and mind. It has, in its most primitive form, all the lifelike warmth and metaphysical import which belong to the experience from which it is chiefly derived. Things are now regarded as agents, and as suffering from each other's action, after the pattern of ourselves. In this more secondary and projected sphere of its

application, too, the principle of causation asserts the reality of the beings whose actions reciprocally affect each other.

Fifth, the later and more abstract conceptions of causation, and of its law or principle, are all generalized from the same actual and concrete experiences. *They can never acquire a different import from that of the experiences from which they are derived.* The more abstract they are made in the supposed interests of science, the more doubtful or impossible does it become to tell with what that answers to anything concrete and real our thought shall fill up their otherwise empty terms. Indeed, in their most abstract forms, the scientific conceptions of causation are so ghostly as to be scarcely recognizable by the parentage to which their origin is due.

Sixth, this process of abstraction itself, the various conceptions of causation as well as the different statements of its law, and all the particular causal relations which are supposed to be maintained in nature, show the work of intellect upon the various items of experience, looking toward their explanation and unification into a systematic whole. Science itself is, therefore, only a system of abstractions unless we admit the metaphysical import and validity of the work of the human intellect. Here, too, for concrete filling, as it were, we are always obliged to go back to those very same experiences in which the known causal relations of body and mind play the important part. All scientific statements of the principle of causation, all ways of phrasing the law of the conservation and correlation of energy, end in words, *empty words*, unless we put into them meaning that takes hold on life and reality. But to get such meaning, and so to tell what that is real, what that is anything more than barren abstractions, the meaning of these statements is, we must resort to our experience with ourselves. And, as has already been repeatedly said, this experience, so far as it has a bearing on the conception and the principle in dispute, is ever

chiefly with ourselves as body and mind. *Were it not for the experience of mind as self-active and yet as dependent upon bodily changes for its particular experiences, and of body as dependent for its particular changes upon states of mind,—we should never have any conception of causation, or any so-called scientific principle of causation, or any law of the conservation and correlation of energy, or even any dispute as to whether the notion of causation applies properly to the relations of body and mind. Causality is most originally and concretely an experience of relations between body and mind.*

Seventh, the attempt to frame some abstract statement of the law of causation so as to annul the force of the very experience in which the notion of causation originates, is illogical and absurd. It will also always be vain, whether its illogicality and absurdity be detected or not. It is precisely this attempt which is made, however, when we are told in the name of the principle of the conservation and correlation of energy so called, that the body and the mind *cannot* be causally related. "Cannot," indeed! when it is the experience of this very relation that has given birth, by a series of abstractions which have taken it farther and farther away from life and reality, to the alleged scientific principle. On the contrary, we ask: How *can* a principle like that of the conservation and correlation of physical energy, which itself results only from generalizations within a limited and relatively doubtful sphere, acquire the force necessary to contradict the plain import of facts from which the generalizations themselves start, and in which they have their only real support and very life?

The position just taken is sound and secure in defence, whether the attack upon it be made by the student of physical science who gives a merely phenomenal, or by one who accepts some metaphysical, interpretation of this law. In the former case, we recur at once to the position that phenomenalism must not prate about what "can" or "cannot" be, on

grounds of known difference in real kinds of beings whose relations are under consideration. On grounds of mere correlation of phenomena as phenomena, it is precisely those phenomena called bodily and mental which most suggest and enforce the relation of causation. In the latter case, however, that metaphysics of physics which states its conclusions in a law of the conservation and correlation of energy can never stand the shock of hostile encounter with the vigorous and universal metaphysics which interprets, in terms of reality, the experience from which it is itself derived. The pale and bloodless child, begotten by commerce of a god with a cloud, can never destroy its own divine progenitor. In fact, men do continue to believe, and will continue to believe, that the body is in reality different from the mind; and that these two are constantly influencing and causing changes of states in each other.

This popular metaphysics is, of course, substantially that of the dualism with which, it was said in the earlier chapters, the unprejudiced study of psychology as a natural science begins. It would appear, then, that the study of empirical psychology ends with the retention of the same dualistic position with which it begins. Nor when philosophical reflection is applied to the facts of psychology, with a view to determine what is meant by the reality, identity, and unity of the mind (and of things in their relations to mind), does there appear as yet any reason to alter this position. Metaphysical discussion, however, has already greatly altered our conceptions as to what is properly meant by such terms as reality, identity, unity, etc. It has also altered the naïve conception of what is meant by causation and kindred terms; and it has, even more pertinently, called attention to the real meaning of the same terms as employed by modern physical science.

We might be content to leave the question of the relations of body and mind, as a philosophical discussion based

upon psychological data, at this place, were it not for one important fact. This fact is the presence of rival and contradictory metaphysical views which claim to give a better interpretation to the results of psychological science, — or even, perhaps, to give the only permissible interpretation to certain classes of these results. It is necessary, then, to pass in review the classes of facts that especially require explanation; and also to examine critically the metaphysical theories which give another than the dualistic interpretation of the facts.

CHAPTER VIII

MIND AND BODY (*continued*)

THERE are three main classes of phenomena the scientific treatment of which is necessary in order to give a basis in psychological facts to the philosophical discussion of the relations, in reality, between the mind and the body. The first of these comprises all those experiences which lead men to conceive of both mind and body as really existent, and so capable of being opposed or dependently related to each other. For unless there were some ground in experience for assigning a certain duality of real being to ourselves, those very questionings would never arise which Materialism and Monism answer by denying the reality of this duality. In other words, a process of diremption actually accomplished, a distinction in consciousness and the conscious relating of the two classes of phenomena to two sorts of subjects, — in some way and in some respects, at least, opposed, — is a necessary presupposition of the philosophical debate that ensues. As a matter of fact it will be shown that both Materialism and Monism, in their customary forms, commit a kind of *hara-kiri* with this very two-edged sword.

The second important class of phenomena involved in any comprehensive discussion of the real relations of body and mind consists of those changes of mental states (states of consciousness assigned to the subject of all states, the so-called Ego, or Mind) which are dependently connected with preceding known changes in the bodily organs. Expressed in terms to

suit the popular impression, a vast number of our experiences, covering various subordinate kinds, show the constant and pervasive "influence of the body *over* the mind." But modern physiological and psycho-physical science assumes that only as the less central bodily changes get themselves expressed in changes within the cerebral hemispheres do they directly influence states of consciousness. The more scientific form of inquiry, therefore, concerns those particular antecedent or concomitant changes in brain-states on which particular phenomena of consciousness depend. This dependence, of course, may fall under various forms of relation,—such as those of kind (or quality), of intensity, of time-rate and temporal order, of synthesis or fusion of partial processes into more complex processes, of recurrence of similar processes, etc. These are the phenomena which the materialistic solution of the problem of body and mind selects for consideration; which it emphasizes to the relative or complete exclusion of all other phenomena; and which it then, with a one-sided and uncritical metaphysics, employs to establish its peculiar view of the real relations of those beings to which the phenomena are popularly assigned. In doing this, however, the materialistic hypothesis too often shows its complete inability to comprehend the significance of the other classes of phenomena. And since the question which it undertakes to answer only acquires its meaning as a result of the development of the consciousness of Self (with all the self-activity and concretely known reality of being which this development involves), the materialistic answer virtually consists in denying the primary terms of the problem.

The third class of experiences which any thorough discussion of the relations, in reality, between body and mind must consider is the reverse, as it were, of the foregoing. It comprises all those changes in the conditions and states of bodily organs which appear to be dependently connected with previous known changes in the states of consciousness. Accord-

ing to the popular way of expressing the conclusion from these experiences, the mind has "an influence *over* the body." If, now, one attempts to give a more precise scientific statement to this somewhat vague and too general statement, one must go on to show what are the antecedent or concomitant changes in consciousness that determine particular brain-states. Or, since on this point our scientific knowledge of the second term in the sequence is, and probably must remain, rather limited, one must note chiefly the more peripherally located bodily changes. These, too, consist of various forms of relations, — such as those of kind, of intensity, of time-rate and temporal order, of synthesis or fusion of partial processes into more complex processes, and of recurrence of similar processes. It is these sequences in phenomena, when regarded solely from the psychological point of view, which a monistic spiritualism selects chiefly to regard; and so it, in turn, frames its one-sided metaphysical hypothesis.

It will doubtless occasion some surprise that the very decisive class of phenomena which are supposed to consist of a strictly concomitant correlation between so-called mental and so-called bodily changes, are not especially emphasized at the very beginning of our discussion. For it is upon the basis of such an alleged correlation — absolute throughout, and comprehensive enough to embrace all those experiences which the discussion of the real relations of body and mind needs to take into account — that modern Monism claims to build. This metaphysical theory is, indeed, fond of referring, in a proud or in a shy way, to Spinoza as its great progenitor. But, of course, Spinoza knew little or nothing of that science of psycho-physics and physiological psychology which has all been inductively established since his day. This philosopher, in respect of his views of the relations of body and mind, was in the main the uninstructed follower of the Cartesian philosophy. This statement is especially true of the Spinozistic doctrine of substance, and its assumptions (undoubtedly false

and misleading) as to the nature and significance of the principle of causation. On this last point it would be difficult, indeed, to regard Spinoza as the genuine ancestor of the modern scientific doctrine. It would not be difficult to show, however, that it is really a similar *a priori* point of view, instead of the necessity for a scientific interpretation of the phenomena, which largely determines his modern admirers.

The reasons why the phenomena of so-called "concomitant correlation" are not at once emphasized as comprising the class of facts to be especially taken into account, and why they are not even put on a par with the three classes of phenomena which have been mentioned, we are not at all loath to give. We are simply adhering to our purpose to go back and find a basis for metaphysical discussion in the most undeniable facts of a scientific psychology. Now, *strictly speaking, there are no such immediately known and undeniable facts as correspond to the modern conception of a strictly concomitant correlation of so-called mental and so-called bodily phenomena.* From the very nature of the case no such facts exist to be observed; from the very nature of the case there never can be observation obtained of such facts. And this is true for two (if no more) indisputable reasons. In the first place, the two classes of phenomena to be related are both found within the same stream of consciousness; and this stream is of such a character that it permits a knowledge, by self-consciousness and memory, only of regular *sequences* of states. Some of these states must, indeed, be considered as perceived changes in my own bodily organs; others of them must be regarded as self-consciously recognized changes in those feelings, thoughts, purposes, etc., which I come to attribute to the Self. On the basis of such known sequences — as was seen in the last chapter — the firm popular conviction that body and mind are causally related is built up. But never does the subject of all states detect or remember two "*parallel*" series of

changes, running on side by side in the one stream of consciousness, — one of which it is compelled to assign to the being called "my body," and the other to the subject of states called "my mind."

Here it is important to refer to actual experience as it occurs in the localizing of our sensation-complexes and bodily feelings, and to the theory of perception which such experience justifies. So far as this experience consists of an immediate knowledge of the condition of certain peripheral portions of the body and of the sequent changes in the feelings, ideas, and purposes, there can be no doubt as to its nature or as to its effect. I see, for example, that a bee lights upon my hand, or that my hand has come in contact with a heated surface; and immediately after I feel the peculiar pains of being stung or of being burned in that place. In all such cases the more objective localization of sight and the more subjective localization of touch (in the most general meaning of the latter word) co-operate to emphasize the recognition of states of consciousness as dependently connected in time with antecedent bodily conditions. But in the case of changes in consciousness that are dependent upon conditions of the internal organs of the body, this relation of uniform sequence is not ordinarily a matter of experience in the same way. Certain sensations that have a strong tone of pleasurable or painful feeling are known only by touch, and not by sight; they are localized as painful or pleasurable feelings in the internal organs of the body, — and this, as a condition of their rise into consciousness at all. In such cases also, however, the dependence of the states of consciousness on the antecedent condition of the bodily organs may often be brought out by — for example — pressing with our own hands, or being otherwise pressed upon the surfaces beneath which the affected organs lie. In such cases the dependent sequence of bodily sensations and painful feelings is emphasized in a more objective way. The impression is thus strengthened

that *how I feel* "depends upon" how *my organs are affected* by agencies lying outside the stream of consciousness.

It is quite unnecessary to exhibit here the evidence on which modern physiological and psycho-physical science has reached the conclusion that it is the brain, with its contents of highly organized nervous substance (and especially the cerebral hemispheres), which is the sole intimate and immediate physical correlate of the changing states of consciousness. It is precisely this interior portion of the body, however, about the condition or even the existence of which one has least reason to entertain a suspicion, from the character of the changes in the stream of consciousness. The modern man, indeed, — with his over-charged nervous constitution and over-strung nervous action, — may experience a variety of painful feelings which he localizes in the region of the head. But rarely, or never, does anything occur in his experience which gives him any information with respect to the great significance of the contents and conditions of his cranial cavity. For aught that he knows, or is tempted to conjecture, the "stuff" within the unyielding bones of his skull may be, of all the internal portions of his body, the most indifferent to his welfare. His experience with those perceptions whose organs are seated in the exterior of the head, and especially with the eyes, would indeed lead him to regard the mind, or soul, as somehow located inside the skull; but about the objective aspect or objective existence which is called the brain, nothing whatever can be got out of the ordinary consciousness.

It follows, therefore, that instead of an absolute concomitance of the two series of phenomena — the bodily states and the states of consciousness — being established by ordinary experience, such a concomitance is not even very obviously suggested. It certainly can never, as it were, be got into terms of actual experience for the normal and unprejudiced consciousness. This is one chief reason why Monism

is, and must remain, even if it should establish itself upon a sure scientific foundation, a scholastic doctrine. What every man believes is that certain bodily conditions influence, or cause, the following changes in the mind; and, just as certainly, that certain states of consciousness determine, or cause the following bodily conditions.

It is only by a complicated and doubtful network of inferences that the knowledge (?) or even the conception or suspicion of a strictly concomitant correlation between brain-states and states of consciousness is reached. This statement introduces the second of the two considerations to which attention should be called. Without certain important metaphysical assumptions, it is difficult or even impossible to see how this necessary work of inference is to be accomplished. For let it be remembered that no one ever, under any circumstances actual or conceivable, has or can have an immediate knowledge of concomitant and correlated brain-states and states of consciousness. The correlation itself is, and must always remain, nothing better than a conjectured connection between known sequences in consciousness (part of which present themselves as bodily states and part as my feelings) and inferred sequences, of a quite conjectural order, in an inferred or hypothetical entity called the brain. In the first chapter (pp. 28 f.) we exposed the very ill success which M. Flournoy has in destroying all metaphysics by the teeth of his psychophysical Janus,—that is, by this very principle of strict concomitant correlation of the two classes of phenomena. We have just seen that actually our experience of the two classes of phenomena, whose existence demands that explanation which the principle of correlation is thought to afford, is one rather of a dependent sequence in consciousness. The conclusion seems to follow that this alleged empirical law requires, for its efficient working, an extraordinarily elaborate equipment of metaphysical assumptions. Instead of devouring other metaphysics because it is the voracious enemy of

all metaphysics, it cannot maintain itself without devouring no little metaphysics in the interests of its own support. Its very life-blood demands metaphysical pabulum; for, we repeat, *one entire half of the theory of "concomitant correlations" between mental phenomena and brain-changes consists of conjectural sequences in the behavior of an inferred entity.* This half, at least, cannot thrive on food supplied by a consistent phenomenalism. How inconsequential actually is much of the metaphysical import that is first put into this principle, and then extracted from it, will appear in the following chapters.

At the same time we do not begin our metaphysical discussion by denying the alleged facts on which the theory of concomitant correlations between body and mind is based. On the contrary, we have in other treatises made a somewhat detailed investigation of them, as facts.¹ In this connection, of course, their bearing upon the speculative doctrine of mind is peculiarly influential. They will, therefore, be carefully taken into the account at the proper time. The true scientific approach to this discussion, however, still seems to us to lie through the recognition and appreciation of those three classes of experiences about the existence of which there can be no dispute. These have been declared to be: (1) The facts of experience on the basis of which all men distinguish mind and body, so that the problem of their real relations comes under discussion at all; (2) The facts of experience which lead all men to suppose that the body influences, or causes, changes in the mind; and (3) The complementary facts of experience which equally lead all men to suppose that the mind influences, or causes, changes in the condition of the body. .

That wonderful "bi-partition" or "diremption" of the

¹ In the three works, "Elements of Physiological Psychology," 1887; "Outlines of Physiological Psychology," 1891; and "Psychology, Descriptive and Explanatory," 1894.

states of consciousness which results in the concepts of a body *and* a mind, so that the two may be regarded as in some sort related existences, is undoubtedly the result of a process of development. Indeed, if anything violent, or necessarily sudden and startling, is suggested by the word "diremption," it should perhaps not be employed at all. By such a term it is designed to signify the completeness of the separation which may take place as the resultant of this process of development.

The formation of the concept of mind — its basis, its nature, and its stages in evolution — has already been discussed in a preceding chapter (III). The parallel psychological history of the developing conception of a "Thing" as *not-self*, as external to the Self and extended before the Self, cannot here be traced in detail.¹ But certain important points to be noted in the process of acquiring that more or less distinct bi-partition of Self and the body, regarded as *a thing standing in peculiar relations to the Self*, which all adults have, may here be borrowed from the descriptive and explanatory science of psychology. This will necessitate the reference again, although from a different point of view, to experiences that have already been brought to our attention more than once.

"As respects its objects, knowledge is either of Things or of Self. The distinction between Self and Things becomes, only as a result of the development of cognition, so clear and so fundamental that it appears to ordinary thinking to be original, and to belong to the very conditions of experience as well as to the nature of reality. The sane adult never confuses himself with things; the very question, how he came to make and maintain so consistently this distinction, seems to him to savor of irrationality. . . . Both the content of consciousness and the general tone of consciousness are 'objective,' or externally directed and focused, as it were, in our knowledge of any thing. The meaning and bearing of such a

¹ But see "Psychology, Descriptive and Explanatory," chapters xv. and xvi.

statement can be understood only by considering it in the light of all that has thus far been said respecting those mental processes which enter into our so-called 'external' knowledge. For example, what are the distinguishing characteristics of my mental states when I am examining a flower, watching a spectacle, or looking through a microscope; or, again, when I am feeling a surface, lifting a weight, or pushing a lawn mower? As respects content of consciousness, those series of sensations — notably of the eye and of touch, including muscular and joint sensations — that have a predominating objectivity are determining the flow of the stream of consciousness; attention is being concentrated on the localized and projected sensation-complexes; the images revived and fused with the sensations are chiefly representative of past sensations; and the condensed psychological judgments that take place have reference to changes, experienced or expected, in the sensation-complexes. Moreover, the more conceptual elements of the mental state — such as the naming and classifying of, and concluding about the object — are such as connect it with other similar or unlike things. That is to say, *it is visual and tactual sensation-complexes, with the memories, imaginings, thoughts, and reasonings referring to sensation-experiences, which characterize the content of so-called external cognition.* Moreover, the feeling-tone and conative activity of this state of knowing a thing differs markedly from the affective and volitional aspects of distinctively self-conscious states. The affective accompaniments are not so much interesting in themselves, because of their pleasurable or painful tone, as they are feelings of sensations, — feelings which assist in discriminating more effectively the objects of the sense-perceptive activity. Conative consciousness is also very different when the object of cognition is some thing rather than some state of the Self. This is true, not simply with respect to the direction of attention upon the different parts and changing phases of the perceived object; it is also true with respect to the entire

condition of dependence upon volition which is characteristic of the object. I cannot *will* changes in things, their relations and their qualities, as I can will changes in my own states.

"The knowledge which is of Self differs from the knowledge which sense-perception brings, both as respects content of consciousness and general tone of consciousness. *This knowledge has its content, not chiefly in sensations at all, but in mental images, thoughts, feelings, or volitions.* The sensuous elements of consciousness, especially those of the most definitely localized and clearly projected sort, are relatively suppressed. In predominating states of self-consciousness the sensations are of the vague, unlocalized order, which are attributable to myself as a sentient organism, rather than to any objective thing. But especially is the attention directed to feelings which are interesting to me as *my* feelings, because of their tone of either pleasure or pain. In this way, by the influence of feeling over attention, one often passes back and forth between the objective and the subjective aspects of the same experience. For example, when one is in a bath one feels the temperature of the water as the quality of an external thing; but if it is greatly too cold or too hot, one becomes aware of one's self as suffering with the pain of heat or cold. It is largely because of their ordinarily toneless character as feelings that our visual sensation-complexes are customarily known as qualities of external things."¹

Now, the knowing of the bodily organism, *quoad body*, is in no respect different from the knowing of any other thing. It is as external and extended, "out and spread-out" for my own consciousness, — whether the framing of this consciousness be chiefly in terms of sensation or of imagination or of thought, — that *my body* becomes an object of knowledge for me. In no other way than as a thing does this particular object become known as body; and this is as true of the internal organs, if only they are to be regarded as parts of the

¹ Psychology, Descriptive and Explanatory, pp. 519 f.

body, as it is of the most obvious superficial areas. The alternative presented to cognition, then, is not between a thing that is *not-mind* and a thing that is somehow more especially *mind*, because it is my body; the alternative is between *that* thing which becomes known to me as my body and those *other* things that also become known to me, as things, through their relations to the body. In other words, the peculiarity of the case does not consist in the peculiar qualifications of the thing known, but in the peculiar relations in which this particular thing (or system of things) stands to the states of consciousness. Nor does the process of developing a knowledge of one's own body emphasize it as less really having all the spatial qualities which all things have. It is the process of bi-partition, or diremption, which is itself evolutionary; there is no evolution bridging over the chasm between mind (as such) and things (as such). At this point, again, we may profitably consult the conclusions of the science of psychology. We resume the description of this process of bipartition of experience between the Self and Things at the point at which it was left when tracing the development of the concept of mind (see p. 111).

"The development of the knowledge of Self does not involve the possession or the employment of mental faculties different from those which have been described (that is, in the acquiring of a knowledge of things). On the other hand, all these so-called faculties are exercised in the growth of this kind of knowledge as well as in the growth of the knowledge of things. From this general statement respecting the true psychological doctrine of self-knowledge several important corollaries follow: (1) In the earlier stages of mental life no psychoses can be discovered which are worthy to be called a knowing of Self. If we adhere to the distinction already insisted upon between consciousness and developed self-consciousness, we cannot properly ascribe self-consciousness — or the immediate awareness and reference of any state to me

as *my* state — to the infant mind. (2) Certain classes of the elementary processes of mental life possess characteristics which focus attention upon them, and which stimulate discriminating consciousness to set them apart, as it were, from other processes in the stream of consciousness. Such characteristics are furnished by the tones of feeling and the amounts of conative activity which render psychoses subjectively interesting. On this basis some states of consciousness, regarded merely as states, are fitted to be ascribed to the so-called 'Self,' — a conception of which is formed on the basis of experience chiefly, at first, with this very kind of conscious states. (3) Development of the knowledge of Self, like that of the knowledge of Things, follows a certain general order, which may be said to be the order of nature and essentially the same for all men. At the same time different men, and even different races, differ quite as markedly in their conceptions of Self as in their conceptions of Things. Nor is this difference confined to conceptual and inferential knowledge of the *Ego* alone. What Lotze has vaguely called 'self-feeling' is by no means the same, either in its complex qualifications or in its intensity, with all individuals or all races. Moreover, inasmuch as knowledge of Self is still *knowledge*, and so is subject to all the conditions and laws which make cognition in general possible, the self-knowledge of some is more largely a matter of intellection; of others, more largely a matter of feeling; of others, more largely a matter of conception suffused with predominating motor consciousness. And, indeed, if this were not so, the knowledge of Self would not be knowledge at all; for it would not correspond to the reality. In some men's actual lives (their real being) the emphasis is habitually laid upon the intellectual aspect; in others, upon the emotional aspect; in still others, upon the conative aspect of consciousness." ¹

It is a conclusion from this general statement, which all

¹ *Psychology, Descriptive and Explanatory*, pp. 522 f.

the facts of observation warrant, that "the stages of self-consciousness follow, in general, certain broadly marked lines. Of these stages the consummation of the first is reached when the sentient body is distinguished from other bodies with which it stands in changing relations, and which are not themselves immediately known as sentient. The primary intellectual activity involved in this stage consists in discriminating between certain perceived objects that are not felt as pleasurable or painful, and a certain one object that is not only externally perceived in changing relations to other objects, but is also painfully or pleurably felt. It is plain, then, that the knowledge of Things and the knowledge of Self are, in the earlier stages of knowledge, psychologically considered, interdependent. Hence the earliest known 'myself' is *my body*, as sentient and under voluntary control, — parted off from and contrasted with other bodies which are not sentient or under voluntary control. In other words, discriminating consciousness constructs the first Ego as identical with the entire living body, — its felt pleasures and pains, and its voluntary movements, especially as connected with the satisfaction of desire, the withdrawal of it from objects that give pain, or the forcing of it into contact with resisting things, etc.; but it excludes from this *Ego* (as *non-Ego*) everything which does not feel with it, and follow its movableness, and manifest itself, as it were, as organically connected with it.

"With the child who has attained any vivid knowledge of his selfhood, it is (ordinarily) the feeling, moving body that represents the 'self;' and his most abstract conception of his own being does not get far beyond vague generalizations, warm with emotion, upon the basis of bodily experiences. If the earliest form of the representation of the Ego could speak, and could use the abstract language of philosophy, it would announce itself thus: '*What is here and now, that am I.*' In this regard the child would agree with the philosopher when-

ever the latter tries to realize his highest conception of the Self. But with the child, 'What-is-here-and-now' — 'that-which-am-I' — is chiefly what it can put its own hand upon, of its own body, or what it feels within its own thoracic or abdominal cavities."

Even in the case of children and savages, however, there are not wanting universal indications of a consciousness of *something more*, which is not to be conceived of as a "more" of the same kind, but rather as a "more" that is, in respect of kind, over and beyond the known bodily organism, and even contrasted with it. Some children at an early age intelligently refuse to identify any part of the body, or even the entire obvious body, with that which is called "I," or which answers to the particular name they bear. The fact that some parts of the bodily surfaces, and some bodily members, constantly appear before the eyes as extended and external objects; that other parts are seldom located as the seats of any experiences which are intimately interwoven with the more interior feelings, thoughts, and volitions; and that a somewhat indefinite amount of bodily substance can be parted with and no essential modification of the stream of consciousness result, — all these and other facts operate to promote a much further extension of the process of bi-partition.

Indeed, "in connection with this more external development of self-knowledge the conception of Self as the permanent subject of psychical states is in process of formation. The whole course of definitively *intellectual* growth renders the bodily feelings less pre-eminent, not to say overpowering, as an essential condition of such growth. The processes of ideation, of thought, and of the more complex and refined forms of feeling, do not admit of definite localization, or even of that obscure attribution to the bodily self which the intra-organic sensibilities require. Yet all these so-called *intellectual* activities not only have their objective reference, but also their aspect of feeling; they are *felt* thoughts, etc. On the

other hand, it belongs to the very nature of knowledge, as a development attained by intellectual life, to involve the belief in reality. A 'Thing' as known is not a mere bundle of sensations, images, and inferences; it is a being to which attributes are ascribed. Every one's primary bodily Self therefore becomes self-known as such a 'thing-being,' the subject of passive and active experiences of a peculiar kind. But consciously discriminated processes of ideation, thought, and non-sensuous feelings can no more float mid-air, as mere objective pictures, than can the coarser and more sensuous bodily self-feelings. It is natural and inevitable, then, that the intellect should form the conception of a Self which is a real being, a subject also of all such non-bodily states. This is rendered possible by the same kind of abstraction, freeing of ideas, comparison, thinking, and naming which renders possible the knowledge of things. Such consciousness, in the form of the conception of being a 'mind' or 'soul,' — a real subject of psychical processes, — is at first vague and fitful; nor does it ever imply any special faculty for its attainment. It is, however, a necessary development, to some extent, of all human intellectual life."¹

"Finally, it is by complex synthesis of judgments, based on manifold experiences converging to one conception, — the resultant of many acts of memory, imagination, reasoning, and naming, — that the knowledge of the self as a unitary being is attained. The Self that I thus come to know is regarded as the one subject of all the states of consciousness, — whether they be states of knowledge, of feeling, or of willing; and whether they be known presentatively, as here and now, objects of self-consciousness, or remembered or imagined as states of the past, or conjectured as possible states to be existent in future time. I thus become known to myself as both real and logical subject of all the states in the ceaselessly flowing stream of consciousness. This is the final and

¹ Psychology, Descriptive and Explanatory, pp. 525 f.

supreme achievement of self-knowledge. But this knowledge can never, of course, be other than itself a process of conscious mental life, attained as the result of a development. *In one and the same act the mind makes itself the object of its self-knowledge, and believes in the real being of that which it creates as its own object; and then it passes into other states of knowledge that dissolve this unique creation by turning the attention to external things.*"¹

What now, upon the basis of this psychological description of the development of that distinction which all men make between the phenomena called bodily conditions and the states of consciousness as such, does reflective thinking conclude with respect to the real relation between those two beings which are called, respectively, the body and the mind? The diremptive process is, indeed, itself a matter of development; it implies different stages reached by different individuals, and different phases and factors emphasized at different times. All minds are not alike, and all bodies are not alike. This is really so; and it is so, too, in the self-consciousness of the mind which knows itself, at least partially, as it really is. But it is as *metaphysical*, and therefore as appertaining not merely to classes of phenomena but to different beings in reality, that this distinction is developed. Just so fast and so far as the process of bi-partition goes, *it has reference to the world of the really existent*. It is not simply a distinction of phenomena, although it is based upon distinction *in* phenomena. Psychology sets forth, by its *analytic* and evolutionary study of consciousness, the differences in the two groups of phenomena, and it also traces the stages and epochs by which the distinction advances. But *metaphysical analysis* shows that the reality of the distinction is implicated even in the fully developed consciousness of the distinction itself.

Moreover, this distinction between the two beings called

¹ Psychology, Descriptive and Explanatory, pp. 531 f.

myself, as mind, and my body is the most complete and irreducible of all distinctions. It is the distinction between the self-knowing subject of the states of consciousness and the external and extended — the physical — object of its knowledge. As has been shown, we know our bodies in essentially no other way than that in which we know other things. We know them as possessed of no other properties than those which are possessed by all other material things. The most advanced scientific knowledge does not modify or minimize this fact; on the contrary, it rather emphasizes the fact. To the student of physiology or of psycho-physics the masses of the cerebral organs have extension, weight, inertia, specific gravity, and all the other essential qualities of other masses of matter. The most powerful microscope does not make the nerve-cells and nerve-fibres any less distinctly physical than they appear at first sight to the naked eye. Chemical analysis of the cerebral substance reveals its enormous complexity, and also — we seem warranted in saying — certain other physical properties that fit it in a peculiar way to serve as the physical basis for the phenomena of consciousness. But chemical analysis, instead of bringing out any hidden secrets of a sort that would enable us to regard this substance as a *tertium quid*, or an “external aspect” of the one being whose “internal aspect” is consciousness, has precisely the opposite effect. It shows that the cerebral substance has the same atomic elements which are found in all manner of inferior things.

And why, indeed, should this not be so? For where, according to physical, chemical, and biological science, did the cerebral substance come from; and what can the cerebral substance, after being so elaborately constructed, of itself alone (as it were) do? To these inquiries the scientific reply is not at all doubtful or ambiguous. The cerebral substance came from nature, — from soil and water and air; and it is capable of molecular and atomic motions of a highly compli-

cate order,— only this, and nothing more. Science no more makes this substance like that self-cognizing subject of the states of consciousness which we call the mind than it makes the clod of the valley or the mineral from the mine like that same subject. Psycho-physics does not endow the nerve-cells and nerve-fibres, as such, with any psycho-physical properties; they remain, under all possible forms of examination bestowed upon them, nothing but bits of matter,— things, with all the properties of things, but with none of the properties that belong to the mind as the self-known subject of the phenomena of consciousness. Neither does physiological psychology effect such a union between the psychological and the physiological standpoints as in the least to lessen the real differences in the two fields over which its researches ramble; indeed, it is, properly speaking, nothing but the science of the behavior of mind as dependently related to that other kind of a being which mind knows as not-mind. It is the science of mental phenomena as dependent upon a physical and molecular construction called the nervous system.

Moreover, the very term “the body” may be used so as to cover a scientifically unwarrantable and metaphysically misleading series of inferences. Strictly speaking, *the* body is only an abstraction from the behavior of a vast number of physical elements which never cease to be a dependent part of physical nature; and which never, therefore, so leave the sphere of the physical as that they can possibly be considered to be another “aspect” or “face” of a being with two aspects or faces. *Our bodies, as such, have only a formal existence.* If the mind be styled “a stream of consciousness” that never ceases to flow, and has no existence except as a stream, a similar figure of speech is far more aptly applied to the so-called body. As Lotze has said: ¹ “The ceaseless universal motion of Nature is the all-embracing tide, in whose most agitated part— not indeed like steady islands, but only

¹ *Microcosmus*, vol. i. book i., end of chap. vi.

like whirling eddies — living beings emerge and disappear, as the masses in their onward course experience momentarily a common impetus into a new path, a concentration into a definite shape, before being erelong again cast headlong and in fragments into the formless, universal tide, by the same forces that brought them to this point of intersection.” But this view, which modern natural science emphasizes so strongly, and illustrates in so many astonishing ways, is as old as the attempt of man to understand himself at all. It was the ceaseless flux of things, and not least of the animal body, which impressed ancient thought with the notion of the instability of all Being; and which led to the conclusion that its essential nature is a process of Becoming. To this perpetual flux of physical things, as every one knows, Plato and Aristotle opposed the universal and permanent character of thought and of the being that belongs to it. Nor does one need to go to philosophy to learn that what I call “my body” is not *mine*, in any strict sense of the word possession; it is at best only a temporary loan on which usurious interest is constantly exacted, and which is finally all recovered by the Nature that loaned it, either in the form of heavy instalments at certain periods of life, or by some sudden foreclosure of mortgage. For do we not read in Scripture that “as a flower of the field, so it perisheth;” and in Shakespeare: —

“*Hamlet.* A man may fish with the worm that hath eat of a king; and eat of the fish that hath fed of that worm.”

King. What dost thou mean by this?

Hamlet. Nothing but to show you how a king may go a progress through the guts of a beggar.”

The truly scientific view of the origin and nature of the bodily organism — nervous system and brain included — might indeed lead to the theory that the two beings, body and mind, distinguished and opposed as they are in the conscious

life which is characteristic of the latter, after all do both have their real existence in that One Infinite Being which the physical sciences call by the abstract and unmeaning term Nature, but which the philosophy of religion denominates the Absolute Mind. But however this may be, no conclusion would be more rash and unwarrantable than at once to identify the being of the mind (the source and conservator of all distinctions, and especially of the distinction between itself as the subject of conscious states and all forms of things) with that body which is only existent at all as, for a brief time, formally distinct from an all-environing physical nature. To the insuperable difficulty which Monism as a psychological doctrine encounters from this consideration we shall return later on.

It follows finally, then, that all metaphysics, — both naïve and instinctive, and also scientific and critical, — in so far as it distinguishes mind from matter, or self-conscious, thinking, feeling, willing beings from things regarded as external, extended, and belonging to the physical realm, is involved in the distinction between body and mind. If that bi-partition which arises out of all experience, and which all experience justifies, — upon which, too, all science, conduct, and art, as well as religion, reposes, — is not justifiable in the case of my so-called body, and my so-called mind, then it is not justifiable at all. Here consistency in declaring the metaphysical import of experience, as described and explained by psychological science, may well be rigidly insisted upon. Neither Materialism nor monistic Spiritualism nor Monism can escape from the obligation to be logical in its philosophical treatment of phenomena; for the evolution of that diremptive process which establishes the metaphysical distinction between body and mind, and which assigns the former to the realm of things, is a matter of experience and of fact. The metaphysics of mind has already taught us what is the unique nature of that reality, self-identity, and

unity which the mind claims for itself. Physical and physiological science treats of the bodily organism successfully only as it considers this organism to be a really inseparable part of nature at large, formally constituted into a being which can be regarded as correlated, temporarily and loosely, with the phenomena of consciousness. The metaphysics of physics confirms the reality of the distinction, by attributing to the body the properties which all matter is found to possess, but which are opposed to the essential qualities of all minds. Whoever, then, denies the validity in reality of that distinction which results from this universal process of bi-partition must show how his denial can stand in consistency with a general metaphysical system; how, in fact, it can stand at all without the overthrow of the whole structure of knowledge considered as representative of such likenesses and differences of existence as belong to all reality.

In speaking of the second main class of the phenomena which every metaphysical view of the relations of body and mind must take into its account, one need not hesitate to use the language of common life. This language employs all the various terms that express the conception of causation. Thus man's body is said to "influence" his mind; to furnish the "occasions" or "conditions" on which mental phenomena arise; or even to "cause" those mental changes which self-consciousness affirms actually to take place. Scientific psychology, too, should have no feeling of timidity or—if the word may be pardoned—of squeamishness in the use of any of these same terms. The preceding analysis of the sources and the nature of the conception of cause has at least clearly indicated what a more complete analysis would fully justify: *the conception of causation, in its fullest import, is applicable to the relations in reality between the body and the mind.* All attempts to break the force of this application by deductions from the physical principle called "the conservation and correlation of energy" are quite impotent here.

For, as has been shown, this principle itself has no meaning that corresponds to the world of actuality which does not admit the validity of this very application.

The phenomena which exhibit the influence or causal action of bodily conditions and changes upon the states of consciousness are numerous enough. The rather are they well-nigh innumerable; they may be classified, however, under several main heads. And here the entire sphere of physiological psychology — in the stricter meaning of that term — is fitly brought to view. The inchoate but enterprising science of general nerve-physiology introduces us to several important classes of such facts. Chemically considered, the constitution of the nervous system is such as to adapt it for being causally related to the phenomena of consciousness, as self-consciousness knows these phenomena actually to exist. Not, indeed, that the conception, or the forms, or the laws of consciousness can ever be evolved from a study of the behavior of "the unconscious." But, granted as an ultimate and inexplicable fact that the phenomena of consciousness should be causally related at all to changes in nervous conditions, certain plain reasons appear why the nervous substance should have such a constitution and such functions as it is known to have. Its extreme intricacy of structure, as attained by repeated multiplication of a few typical but formally variable elements, serves fitly to correlate it with the great variety in unity of mental phenomena. Its highly elaborate but unstable equilibrium makes it, from the point of view of its chemical constitution, almost incredibly sensitive to the influence of varied stimuli. The differentiations, in chemical and molecular structure of its end-organs of sense correspond to the different kinds of sensation, — although psychologically, it must always be held that sensation is a psychical event, a forth-putting of mind. The principles of inertia, of fatigue or exhaustion and of recovery, of habit and of the effect of new events breaking in upon habit,

as these principles apply to the life of consciousness,—all have their correlates in the constitution and functions of the nervous organism. All the laws of biological growth—heredity, variation, persistence of type as established in the structure by the metabolism of the structure itself—apply, pre-eminently, we might almost say, to the nervous substance. In the same line of connection is the probable assertion that the intensive energy of consciousness, for example in sensation, is directly dependent upon the amount of katabolic changes in the nervous substance. Moreover, the time-rate of mental phenomena, the time which it takes to come to consciousness, as well as the sequence in time of the varying states of consciousness, are dependently connected with the time consumed in the development of related nerve-commotions. This general fact is confirmed and illustrated by countless thousands of experiments in reaction-time.

Another class of facts which modern physiological psychology brings forward in confirmation of the same view consists in the so-called localization of cerebral function; perhaps it would be better to say, the localization of function as applied to the nervous system throughout. The vague and absurd generalizations of the old phrenology have, during the last twenty-five years, given place to more limited and definite generalizations that are firmly established upon a basis of observation and experiment. Certain areas, not only of the spinal cord and of the lower portions of the brain, but also of the cerebral hemispheres, are now known to bear special relations to the sensory-motor and ideational activities involved in the use of the limbs of the trunk, of the head, and of the special organs of sense. The same principle has been experimentally extended to the intelligent employment and understanding of the spoken and written symbols of thought. The exact spatial limits of these correlated areas of the nervous system cannot, indeed, be fixed. And it is altogether likely that we ought not to speak of absolutely fixed limits

in this connection at all. But even if this should be discovered to be true, the very variations possible within the limits, and the movable character of the related areas would only further illustrate and enforce the general truth for which we are now contending. What would then have proved true of the cerebral conditions is now undoubtedly known to be true of the correlated mental phenomena. These vary in the case of different individuals, admit of growth, of lapse, and of decay; and there are cases of idiosyncrasies in the mental aspect that baffle all our attempts to explain or classify them psychologically.

In general, moreover, the conscious life of sensation and of motion is dependently connected with the condition and functioning of the organs of sense (including the central organs) and of the muscular system. This connection has reference to the qualities of the sensations and to the entire complexion of the content of our sense-experience. In ordinary and normal cases the application of particular selected kinds of stimulus to the nervous system is followed, as from a determining cause, by corresponding changes in the sensuous content of consciousness. If a certain kind (physically estimated) of stimulus falls upon the eye or upon the ear, or upon any other of the external organs of sense, then a corresponding kind of sensation arises in consciousness. The knowledge of this class of facts, which are familiar to the most ordinary experience, has been greatly extended and the details refined by the modern science of experimental psychology. Not only have the various confused conditions of sense-experience produced by stimulating the skin been analyzed, but also new classes of sensations — as, for example, those of the muscles, the joints, and possibly of the semi-circular canals — have been discovered and their physical causes investigated.

What is true of relations of quality is even more demonstrably true of relations of quantity or intensity. In general,

increase in the intensive magnitude of the stimulus applied to the peripheral parts of the body, and of the resulting nerve-commotions as propagated along the ingoing nerve-tracts to the cerebral centres, is regularly followed by increased intensity of the appropriate form of sense-consciousness. And extensive magnitude or amplitude of the cerebral disturbances influences the extent covered by the so-called "circuit of consciousness." Just how this relation, in so far as it is maintained between brain-states and states of consciousness, is to be expressed, we are not at present able to assert with confidence. Weber's law was, indeed, thought by Fechner to apply to the direct correlation of the two. That is the psycho-physical law — "The difference in the intensity of two sensations is proportioned to the logarithm of the quotient of the magnitudes of their stimuli" — was believed by the latter to state relations maintained directly between phenomena of consciousness and the phenomena of nerve-commotion in the substance of the brain. By this principle, which he undertook to defend and illustrate experimentally with infinite patience in details, Fechner proved, as he thought, that body and mind are only two phenomenal aspects of one and the same underlying reality. Subsequent research has, however, rendered very doubtful, even as an empirical generalization, the alleged law of Weber; and Fechner's interpretation of the law is almost undoubtedly erroneous. Some investigators¹ have even held that all quantitative differences of sensation are resolvable into qualitative differences.

Even if the existence of a really quantitative difference in mental states be admitted, and also something resembling the psycho-physical law be held true in fact, still the interpretation of the law is (probably) not to be found in direct correlations of cerebral states and states of consciousness. If any simple relation of quantity between these two

¹ Münsterberg so maintained in his "Neue Grundlegung Psycho-physik," Beiträge, etc., Heft, 1890.

were to be maintained, it would be more likely to be the relation of direct proportional variation. But in truth, relations of intensive magnitude in the direction *from* brain to mind are exceedingly complex; and some of them — as will be shown subsequently — are of a character that is distinctly unfavorable to any principle of a strict concomitant correlation of brain-states and states of consciousness. At present it can only be maintained in the most general way, then, that the intensive and extensive magnitude of sense-consciousness is causally related to the intensive and extensive magnitude of the nervous changes in the brain. In this general way, however, the principle of causal relation can be maintained with a very great certainty of conviction.

What is true of intensity is also true of the temporal relations of mental phenomena and cerebral changes. Psychophysical time — or time occupied in the elaboration of the cerebral conditions of consciousness and of the changes of consciousness — is causally related to the character of our time-consciousness. The time-rate and order in time of the different sequent mental states is “influenced by,” “dependent upon,” “caused by,” the time-rate and order in time of the cerebral changes. Here also, however, no one simple formula will serve to gather up and adequately express all the facts. The relation in reality between brain and mind is apparently, as respects temporal connections, very complex. The whole psychological theory of attention, as experimentally investigated, amply illustrates this. Here again, too, some of the phenomena are distinctly unfavorable to any theory which maintains a strict concomitant correlation between brain-states and states of mind. Some of the phenomena are calculated to illustrate rather the influence of the mind over the body; and all of them leave totally unexplained the origin and development of *time-consciousness* as such. For it can scarcely be said too often that when we have explained the time-rate and order in time of states of con-

sciousness we have not even begun to explain time-consciousness as such. "*Enduring and succeeding conscious states, in themselves considered, afford us no full explanation of the consciousness of time-relations as applicable to those states.* Sensations, feelings, 'moments' of conation might come and go forever without, by the mere fact of their coming and going, accounting for or arousing the consciousness of time. This consciousness is a new and unique reaction of the subject of all the states of consciousness; it implies the active and immediate relating work of mind, according to the laws of its own life."¹

Still further, the synthesis of all those neural processes which take place, with a sufficiently near approach to simultaneity, by means of innumerable association-tracts connecting the different cerebral areas, is the bodily correlate, or precondition, of that unity in variety which every complex state of consciousness displays. Or, to reverse the statement, the different factors, or "moments," which are fused in conscious experience as known to its own self-conscious subject are, in respect of their number, kind, and mode of union, dependently related to the combination in activity of the different elements and areas of the nervous substance of the brain. That scientific analysis which direct introspection carries a little way, but which experiment accompanied by trained use of introspection pushes much farther, shows the enormous complexity of our apparently most simple states of adult consciousness. If, however, some states are compared with others in the same individual, or the wealth of one mind with the relative poverty of another, our estimate of the range of this complexity is greatly increased. Yet each state of consciousness can be called *a state* at all only on the supposition that it has a certain unity for the subject of all the states. This unity of consciousness is indeed unique. It is not to be described after the analogy of any material unity so-called.

¹ See "Psychology, Descriptive and Explanatory," pp. 310 f.

Its explanation cannot be wholly derived from, or even suggested by, any unity which the different nerve-elements or nerve-centres are made to have, by the use of connecting nerve-elements or association-tracts, within the one brain. Yet modern empirical psychology, when pursued from several different points of view, enforces the conclusion that the physical variety in unity is, in part, the explanation of the particular characteristics which each psychical unity, each psychosis regarded as a complex of many factors, displays.

Closely connected with this form of causal relation is the dependence of the train of ideas and of memory upon the continued integrity, and the habitual dynamical associations, of the cerebral substance. A brief description of the nature of this causal relation, as taken from the science of psychology,¹ will suffice. "The inorganic tendencies of a molecular kind, however, only faintly foreshadow the organic; it is in the nervous system that all this effect of habitual forms of activity becomes most pronounced. The nerve-cells, like all cells, have the power of nourishing themselves and of propagating their kind. The nutrition brought to them by the blood is used for the enlargement of the cell, under the principle that each cell builds itself in accordance with the molecular character it has already attained. Each cell also may be held to propagate itself under the laws of heredity. But at the same time its internal molecular alteration and the activity of the connected cells are mutually interdependent. Thus what is called the 'organic memory'—or tendency to reaction and further development according to certain lines dependent upon past action and past development—is gained for each portion of the nervous system. Retention and reproduction on the physical side, or as physiological conditions not only of the occurrence and recurrence, but also of the association of mental images, are thus provided for.

"The foregoing considerations apply to the spinal cord,

¹ Psychology, Descriptive and Explanatory, pp. 242 f.

and to the lower parts of the brain. Both experiment and observation show that these nervous structures possess at birth certain aptitudes and tendencies connected with the habits, physiological and psychical, of race, breed, parentage, etc. But these organs, whether in the case of the new-born puppy or of the new-born infant, cannot at first do some things which they can *learn* to do; using still the same convenient figure of speech, they need to acquire, and can acquire, an organic memory on the basis of the experience of the individual. As we have elsewhere observed, 'Every element of the nervous system, especially in the more significant of its central organs, may be considered as a minute area intersected by an indefinite number of curves of different directions and orders; thus a molecular commotion in any such area may, according to its character and point of greatest intensity, run out into the system along any one of these many curves.' In every such small fragment 'the whole curve slumbers.' But pre-eminently true is all this of the nervous elements of the cerebral centres where the so-called psychic nerve-cells are. Of the effect of stimulation upon them one writer¹ affirms that *these* cells never return, after their excitation, to their original condition."

"Hence the mechanism of representative images, as they occur and recur in connection with each other, has its physiological conditions in certain 'dynamical associations' amongst the 'psychic' nervous elements. And the spontaneous recurrence of some of these images *rather than* others, as started by this or that external stimulation, depends upon the character, number, and strength of the 'dynamical associations' which make up the 'organic memory,' so-called, of the nervous organism concerned in the whole process of ideation."

Of this form of causal relation too, however, it would have to be said that the entire explanation of the related states

¹ M. Richet, "Les Origines et les Modalités de la Mémoire."—*Rev. Philosoph.*, June, 1886.

of consciousness cannot be found in the characteristics of the brain-states. *Recognitive* memory — as we have already had repeated occasion to remark — is a spiritual activity which sustains peculiarly intimate and necessary relations to the self-known reality, identity, and unity of the mind.

More obscure and doubtful, in spite of all the advances of psychological and experimental psychology, are the influences, or causal actions, of the brain in respect to the phenomena known in consciousness as *feeling* and *willing*. In all intense or emotional forms of feeling the presence of factors that have their origin in the condition of the peripheral parts of the bodily organism is obvious enough. The peculiar modifications of consciousness in which strong anger, fear, surprise, grief, etc., consist are undoubtedly largely due to the conditions into which the muscles, the vaso-motor system, and the internal organs of the chest and abdomen are thrown. Without using an unjustifiable figure of speech, we may say that these emotions are, to no small extent, feelings *of* the accompanying bodily conditions. There is also good reason to suspect that similar peripheral elements of a bodily sort, with a weaker degree of intensity, enter into our sentiments of apparently the most ideal and spiritual kind. Indeed, we have elsewhere¹ made probable the conjecture which finds the physiological conditions of all feeling “in the ‘semi-chaotic surplus’ of nervous processes originated by stimuli; but regarded as relative to the tendencies of the entire molecular mechanism.” Of the “pleasure-pain” qualification or aspect of feeling, “physiologically considered, we see again how the kind and amount of the stimulation, or the place of its application (to conjectural ‘pain-nerves’ or ‘pleasure-nerves’), has in many cases little to do with the resulting amounts of pleasurable or painful feeling; but the way the stimulation fits in with the existing cerebral conditions, and the amount of ‘disturb-

¹ Psychology, Descriptive and Explanatory, pp. 173 f.

ance' it occasions in the cerebral centres, is the chief determining cause of sensuous pleasure or pain."

"Will" — in the use of that word which corresponds to the complex development of adult consciousness — involves all the so-called faculties of the mind, with their highest potencies and in their most spiritual form. But if the word "conation" be used for the conscious, spontaneous, active aspect of all mental life, its physiological conditions, "so far as science can disentangle them, seem to lie in that automatic molecular activity which belongs to every living cell, but peculiarly to the central nervous masses."

"According to a general biological law, the constitution and functions of the higher nervous centres become more important and determinative for the whole realm of bodily and of psychic life, as we ascend the animal series. At the head of this series stands man. The supreme nervous centres of man are at the same time most intricately organized as physical structures, and also relatively most influential for the control of all the physical and mental development of the animal. Accordingly, the 'automatic' (or centrally originated) functions of the human brain are far more comprehensive and controlling than are the automatic activities of any other nervous mechanism. In other words, what the *brain* of a human being is, and what it does of itself, so to speak, has far more influence in determining the character and development of the entire life of the individual than in the case of any other animal.

"It is not with perfect certainty, but with a high degree of probability, that we are able to say, '*Automatic*' (or *centrally originated*) *nervous activity is the peculiar physical correlate of active consciousness, of the conative element, in all psychic life.* The enlarged amount of this form of neural activity in man's brain corresponds, on the physical side, to his superior intelligent control over his own bodily and mental evolution. The 'automatically' acting brain and

the 'autonomous' (or self-active and controlling) mind may be said to be correlated." ¹

Finally, scientific psychology points out certain causal relations which exist between the general character of the bodily organism — more especially of the structure and functions of the brain — and the existence, tone, and most conspicuous characteristics of the life of consciousness. In other words, what the individual man is, psychically considered, either in respect to the whole course of his psychical development or in respect to the more general features of his psychical life at any particular period, is dependently connected with the character and development of the bodily organism. This principle, thus broadly stated, admits of indefinite illustration and proof. It is enough for our present purposes merely to refer to some of its more important applications. The peculiarities which distinguish the sexes are especially worthy of note here. In spite of the modern effort, in a political and social way, to minimize or overlook these differences, the scientific study of the male and the female of the human species, in both physiological and psychical respects, only serves to multiply and emphasize these differences. Not in those respects alone which are obvious to all do men and women differ. In very blood and tissue, and in the most subtle ways and hidden corners of the physical and mental being of both, are they unlike. And the differences of a mental sort are, many of them, plainly assignable for their causes to original or developed differences of a bodily kind.

In this same connection may be mentioned the dependence of transient or more permanent psychical manifestations upon those bodily changes which belong to the different ages of life. Here, of course, the great climacterics are especially significant. That change in the sentiments which comes with the age of puberty, and the sudden and emphatic

¹ Psychology, Descriptive and Explanatory, pp. 216 f.

stress then laid on the psychical peculiarities of sex, are obvious enough. But psychology is just beginning successfully to investigate those important mental changes which go on far more slowly and quietly in constant dependence upon the growth, the nutrition, the waste, and the decay of the various bodily tissues. The psycho-physical doctrine of disposition, or mood, as well as the physiological explanations of the rise and course in development of all manner of so-called diseased or abnormal mental conditions, enforces the same principle. In fact, the circuit of the twenty-four hours of day and night cannot be completed for any normal person without affording an illustration of this truth. The necessity for sleep at all, the character of the chemical changes which go on in the blood and in the tissues of the brain during sleep, and the changed psychical condition in which, from the psychological point of view, sleep consists, can only be understood as we admit the causative action of body upon mind.

The culmination of the entire argument is soon reached — the topmost point of experience from which all is to be seen that ever can be seen, and where all beyond what is immediately visible rests in total and irremovable darkness — when the obvious dependence of any consciousness whatever upon the states of the brain is presented to our view. Only as the physical pre-condition of a cerebral structure momentarily nourished with a supply of sufficiently aerated blood, and itself engaged in those mysterious molecular changes which constitute what we in our ignorance call “nerve-commotion,” is fulfilled does any correlated stream of consciousness appear. Cut off the stream of blood, and the stream of consciousness dips down beneath its own so-called threshold; nor does it appear again until that physical change on which it depends reappears. Pollute the stream of blood with the deoxidized products of the bodily organs, or with drugs, or in other ways, and the stream of psychical states is correspondingly disturbed.

What need, however, to illustrate further the obvious dependence of mental phenomena upon these changes, observed or inferred, which are necessarily ascribed to the life of the body? For our part, as we have already said, on admitting the facts we feel no hesitation whatever in considering the two classes of phenomena under the category of causation. And, surely, whatever any one can properly mean by the word causation as expressive of relations existing between two series of phenomena, or between two beings both acknowledged to be real, that may one mean with equal propriety when speaking of bodily changes as related to dependent mental phenomena.

The same thoroughness, courage, and consistency must be insisted upon, however, in treating of the third class of phenomena on which a philosophical view of the real relations of body and mind must be made to depend. What is popularly called the "influence of mind over the body" is equally manifest to one who studies with candor the entire field of psycho-physical facts. Here, indeed, the two ends of that series of happenings along which the causal sequence runs are not infrequently much more firmly within our grasp than in the case of the class of facts just previously considered. That certain changes in consciousness determine changes both obvious and subtile, in the functions and very structure of the bodily system, is a proposition based upon a wide range of experiences. Of these experiences, too, a brief reference to some of the more important classes must suffice.

No one using the language of common-sense, and stating the apparently justifiable conclusion from the most familiar facts, would think for a moment of denying that somehow the mind controls a part of the bodily organs in accordance with conscious ideas, wishes, desires, and plans. Oftentimes, immediately after the clear or even the rather obscure mental picture of something to be done—some change in

the position of one limb relative to the rest of the body, or some movement of the whole body in space, for example — arises in consciousness, the execution of the ideated movement is discovered actually to be taking place. Indeed, so common is this experience that it is quite as hard to see how without it man could live at all, as to see how he could dispense with the influence of the perceptions in conveying information as to present bodily relations to other things. This rough popular way of regarding the relation of mental ideas to the execution of those bodily movements in which the ideated action consists only faintly represents what psychological science has discovered to be the real state of the case. Not an idea of any kind, it is probable, can attain any considerable vividness and lifelikeness in consciousness without starting off, or at least instituting a condition of strain within, the motor mechanism of the body. Very vivid and lifelike ideas have a large “dynamo-genetic” value. Here, too, the testimony of scientific psychology is clear: “Even the idea of movement tends to realize itself in actual movement; while the relation of the mental image of any particular movement to the corresponding actual movement is such that the latter, in a voluntary way, is not possible without the former. The attempt has been made to show that in individuals and in races the energy of momentary effort is related to the habitual exercise of intellectual functions. In general, negroes are said to have less power of grasp to exert pressure than have white men; intelligent persons more power than persons of low intellect; and so on. It is even claimed that ‘momentary exercise of intelligence provokes a momentary exaggeration of the energy of voluntary movements.’ However all this may be, everybody knows that to ‘think of’ doing anything creates its own tendency to actualization in doing. To think of jumping from a bridge or tower or bank is too strong a temptation for some persons safely to try to resist it. One cannot well

hold the idea of kicking, striking, eating, singing, dancing, fencing, etc., without starting motor tendencies in those particular directions. Indeed, in a large class of our most complicated motor activities, the movement follows upon the idea with little or no conscious intervention of feelings of interest or sign of purposeful conation.”¹

This “dynamo-genetic” influence of ideas over the muscular system, although the most impressive form of the efficient energy of the ideating processes, is by no means their only form of influence. The guidance and the inhibition of gross bodily changes by ideating states of consciousness should also be taken into the account. Aside from those early “random automatic” movements which the human infant exhibits, almost all the management of his motor organism is plainly teleological. Movement uniformly takes place in these rather than other muscles, or groups of muscles, and thus and so rather than otherwise, because of some particular end to be reached. The sphere of the purely physiological reflexes — purposeful movements which are not affected by the state of consciousness, and are in no wise “psychical” in the sense of being conscious — is, indeed, greatly enlarged by experience. Thus it comes about that many very complicated and seemingly purposeful movements of the body may be controlled by the habitual co-ordinations of the mechanism and without any present immediate influence from ideas. It is in this way largely that adults walk, talk, dress, eat, and perform any acts of acquired skill which may belong to their daily employment. Thus also soldiers may march or serve their guns, members of an orchestra may continue playing their parts when consciousness has nearly or quite departed. On the other hand, it is the guiding force of ideas, the dependence of what the body does upon the causative influence of the quality of conscious ideating processes, which is only less impressive because it

¹ Psychology, Descriptive and Explanatory, pp. 230 f.

is a much more familiar and constant experience. How quickly and strongly do we feel this influence when any marked change in these processes occurs! Not only may entirely new groupings of the muscles and movements of the whole trunk in new directions be at once effected; but even the character of the respiration, of the pulse and heart-beat, of all the vaso-motor action, and of the secretory processes may be changed.

The mechanism of inhibition and the physiological character of the functions which result in inhibition are very obscure. The attempt has been made to account for the inhibition of muscular movement solely by contraction of antagonistic sets of muscles. But this can scarcely be the entire account. For there are certain muscles which fall under the direct influence of consciousness, that have no antagonistic muscles. Such are some muscles in the head and face. A typical instance of an "autonomous" muscle is that used in accommodation of the eye for near distances. The muscles controlled by the facial nerve, which of all motor nerves has the most direct anatomical connection with the motor centres of the brain, are instances of similar autonomous muscles. When the more vivid and lifelike ideas are in possession of consciousness, they not only express themselves positively in the corresponding bodily conditions, but they also inhibit or prevent changes which would occur if these bodily conditions were left wholly without influence from such conscious ideation.

In general, it is no unmeaning figure of speech which regards the entire motor-mechanism (the most subtle and impalpable parts of it most truly) as constantly responsive to the influence of the ideating soul. What a facile servant of his mind, to portray for observation the character of his mental images, is the face of the accomplished actor! And how difficult, if not impossible, is it for even the most cool and well-controlled of men to prevent the quick response of

the bodily members to the image-making activity of the mind! And what other account can be given of all this, if we reject every prejudiced travesty of a real explanation, than that which regards the ideating states of consciousness as calling forth the appropriate conditions of the cerebral centres, and so through the brain and outgoing nerve-tracts commanding expression for themselves? For, as M. Fouillée has rightly insisted, "*Ideas are forces.*" In the case of that complex molecular mechanism which constitutes the human body, with its unique relations to the stream of consciousness, the various states of consciousness succeeding each other in that stream count for something important and real. Changes in this mechanism are initiated, directed, and inhibited or checked, by the activities of ideating consciousness. No man's body can, under ordinary circumstances, be considered as doing what it actually is doing without admitting a causal influence from that man's ideas. And instead of disputing this truth on the basis of vague or incorrect notions of such words as cause, energy, influence, etc., we are rather to adjust our meanings and uses of these words to the obvious significance of the facts.

Not only in the case of the more definitely ideo-motor classes of bodily changes is this principle illustrated, but also in the case of those changes which are sometimes classed as imitative movements. These must be distinguished, theoretically at least, from all purely physiological reflexes. The distinction can be carried out in a partially satisfactory manner, — although psychology has much interesting work in this line still to pursue. "This class comprises those (as a rule) somewhat complex and expressive contractions of the muscles that are called out in one individual, by the presentation of the movements resulting from conscious ideas and feelings in another individual, without, however, awakening the ideas and feelings themselves, or the conscious purpose to express them. In infants, smile answers 'in imitation' of

smile, frown of frown, grimace of grimace, etc. But here, and even in the case of many similar movements in adults, it is difficult to tell how much of the result is to be ascribed to the faint startings of inchoate ideas and feelings that express themselves in sympathetic forms of movement, how much to sub-conscious but complicated generic and inherited reflexes, and how much to involuntary but conscious conation finding its way along the well-worn channels of motor discharge.”¹ A low form, but only a *low* form, of influence from consciousness is necessary to account for the origin and character of these imitative movements. This may be argued from the time at which they begin to appear (fourth to seventh month of the life of the child); and also from the fact that idiots and savages are sometimes most excellent imitators, that certain animals even display the power of imitation, and that hypnotic subjects display a wide range of movements in the same way. It is only on the basis of this kind of influence of mind over body that the lower forms of sympathetic feeling and action can spread so rapidly over multitudes of men; indeed, this form of spreading oftentimes appears more like a simultaneous explosion than like a slowly creeping fire.

In this same connection reference should be made to the present extended and successful use of the principle of “suggestion” in the explanation especially of hypnotic phenomena. The phenomena of hypnosis, although they have only recently been subjected to scientific treatment and are still exceedingly obscure, illustrate all the three classes of cases now under consideration. Those changed conditions of the bodily functions — especially of the end-organs of sense and of the nerve-centres — in which, physiologically considered, the state of hypnosis consists, are to be regarded as causally connected with the peculiar mental phenomena of the hypnotic subject. But, conversely, the changes in consciousness initiated under the psychological principle of suggestion are

¹ Psychology, Descriptive and Explanatory, p. 228.

causally connected with the changed physiological conditions. Now it should not be forgotten that the principle of suggestion is definitively a *psychological* principle, and nothing else. In the conflict which has gone on between the attempts at explaining all the complex phenomena of hypnotism from the two main points of view, — the physical and physiological, or the psychological, — the latter has steadily triumphed along the entire line. Only by its use have these phenomena received a really scientific, though as yet only partial, solution. The science of magnetism, as it is understood and pursued by the physicist, has little or no light to throw upon the phenomena of so-called “animal magnetism.” Those who attribute the production of the hypnotic state to the action of any kind of physical causation upon the brain are obliged to resort to occult and hypothetical forces and entities, such as are entirely unknown to those physical sciences with which investigators from the physical and physiological points of view ought to find themselves most closely allied. How impotent is all this to account for the profound effect upon some hypnotic subjects of the single word “sleep”! On the contrary, the psychological principle of suggestion is one that has secured the clearest possible recognition as explanatory of an enormous number of different subordinate classes of psychical phenomena.

The observed facts in cases of hypnosis are, as a rule, of the following order. In some manner — by word, look, gesture, or some other form of suggestive stimulation of an end-organ of sense — an idea, or set of ideas, is introduced into the consciousness of the subject. Then, with the most sensitive and well-practised of the subjects, a profound modification of the bodily organs speedily takes place. What this modification is, as described with the exactness and detail demanded by physiological science, so far as the cerebral centres are concerned, we are almost wholly unable to say. But, then, there is as yet little or no science of the most normal

physiology of the cerebral centres. The condition into which the muscular, external sensory, respiratory, and circulatory systems are thrown in hypnosis is of course much more obvious. But nearly the whole of our knowledge on this point emphasizes, to a truly astonishing degree, the influence of *ideas* over the conditions of the bodily organism.

And when it is discovered how stigmata may be produced by suggested ideas; how, in the same way, the secretions may be stimulated or inhibited, and even made to come to order at a particular set time; how poisons may be counteracted or their effects simulated in a really dangerous form; how marvellous latent powers in so-called "organic memory," or in the use of the bodily organs (such as imitative singing to rival Lind, and imitative acting that would be well worthy of a "star" performer), or in "clairvoyance" and various forms of tactful insight and far-sight, can be brought into exercise; how painful sensations can be alleviated or wholly quenched, and incredible rigidity and strength of the motor-apparatus can be induced in immediate sequence upon an apparently complete impotency, — when such facts as these are discovered, what remains to be done but to admit them as evidence of the causal influence of mind over body? How, indeed, could the most high-and-dry theological dogma of the "subjection" of the body to the mind be any more emphatically expressed than it is by these facts? What coarser form of the current "spiritualism" exists than that which these hypnotic studies suggest?

But the same states of consciousness which, in one aspect of them, are called our ideas are, in another related but not identical aspect, called our feelings or emotions. The influence of affective consciousness upon the condition of the bodily organism is, in the case of all its more intense forms, particularly marked. The very nature of the emotions, and even of the intellectual, æsthetical, and ethical sentiments, can be understood only as we consider how they take up into

themselves, as it were, the effects in consciousness of accompanying bodily changes. But for the unprejudiced and undaunted student of empirical psychology, the opposite conclusion appears equally justified. Indeed, in treating scientifically of the ideo-motor and imitative movements, it is necessary to recognize the influence of feeling over the muscular system. Here the psycho-physical theory of physiognomy has a large and interesting field for research. Every appetitive condition of consciousness, every passion and strong desire, moulds to its expression the entire appropriate muscular apparatus, unless it be inhibited by some restraining feeling or idea. Here, too, as in the case of suggested ideas, so far as the sequence of events can be traced empirically, and explained in accordance with undoubted experience, it is the mental state which is initiative of the peculiar train of results. Some insulting word, for example, excites anger; or some suggested thought or suggestive sight arouses amative passion; or some sound, of no matter how faint intensity, stirs the feeling of fear, — and immediately the profoundest modifications of the entire bodily system result.

Nor is it in these coarser forms of expression alone that the influence of affective consciousness over the bodily states is marked and wonderful. Let the appreciative listener note the character of the tones which are produced by a masterful player on the violin; or, better still, that fall into the air from the open mouth of the skilled singer. Those vibrating molecules of strings and educated woody fibre are, for the character of their molecular motions, dependent upon the delicately trained muscles of the bow-arm, and upon the deft and sensitive tactual training of the hand with which the spacing is made. And this line of physical sequences can be traced back to the educated molecules of the sensory-motor centres of the musician's brain. But in what "causes," "conditions," or "influences," — use whatever word you will, — shall an explanation be found for the expressive shading which these

successive tones at every instant receive? It is a mockery, that keeps the promise of explanation to the ear alone and breaks it not only to the heart but also to the intellect, if any other answer to this question be given than this: "It is chiefly in the educated feelings of that soul whose actual life of consciousness is inferred as standing at the other end of the complex causal series, and as answering in its essential characteristic experience to our own self-conscious life. Without the constant influence of that life of conscious artistic feeling, these peculiar motor-effects could never in the least degree satisfactorily be explained." And all the science that has been or is or ever will be does not at all disturb this answer. This science only rehearses the story as to where and how the first responsive molecular changes of a bodily sort take place. The changes themselves must still be accounted for as having their explanation in the states of affective consciousness that call them forth.

More emphatically still — if this were possible — are we compelled to admit that the conative aspect of consciousness (or, in its highly developed form, volitions, deeds of will, choices) influences the bodily states. To enforce this claim in detail, it would only be necessary to repeat what has already been said in other connections (pp. 85 f.; 218 f.), and to add innumerable other data taken from the empirical science of psychology. The influence of attention upon the conditions of the bodily organs is beyond doubt. By this influence they are, in the earlier stages of development, made capable of more exact and refined motor activities. By it profound modifications of the secretory and nutritive functions are brought about. There even seems reason to suppose that through this altered metabolism, under the influence of attention, permanent organic changes may be caused. It is neither comfortable nor safe for any one to *attend to* the condition and working of the bodily organs overmuch, — especially in a curious or anxious way. And when attention is itself ar-

rested and guided by strong feeling, or is accompanied by strong emotional disturbances, the entire state of consciousness becomes an excitant, a tonic, an irritant, or a cause of depression of the most powerful character. There is far more scientific information obtainable about the effect of "fixed ideas" upon the bodily conditions than about the effect of brain-states in the production of "fixed ideas."

It is, however, when the consideration of the higher forms of voluntary action — choosing, planning, and contriving — is reached that the controlling influence of mind over the bodily organism is most emphasized in the popular thought. Nor do the subtlest investigations of scientific psychology discover any valid reasons why this should not be so. Here the very nature of attention is *selective*, and so *determinative* of the condition of the organ through which attention is given; for attention is both "innervating" of that particular organ and "enervating" of other organs not, in like manner, selected for use. "Remember to forget Lampe," said Kant; and the same philosopher habitually, from principle, paid no attention to the painful feelings in his chest, although when he did attend to them he always found them there. All education depends upon the recognition of this principle. The palsied man can often — although it be within very narrow limits — control his trembling limbs, if he will. The same thing is true of the frenzied movements of the insane, and even of the self-rallying power exhibited by the fainting and the dying. The question of so-called "freedom of will" need not be involved in any way here; we are simply calling attention to the results, in modifying the bodily conditions, of that state of consciousness which is called will.

Indirectly, through voluntary control over the adjustment of the bodily organism, the greater part of our sense-experiences may be brought under the same principle. In this manner the quality, quantity, time-rate, and order of our sense-experiences become dependently related, not merely in a direct way

to the brain-states which are produced by external and internal stimuli, but also to the volitions of the mind. Indeed, the very reality of our own bodies, and of all physical things in their relations to our bodies, is dependently connected with our feelings and willings.¹ So that no one's states of consciousness are simply "regulative" of the changes in his body; they are also, through their influence, "constitutive" of these bodies and of the things known through the bodily organs. Thus arises in psychological science that impression of the nature of mind on which Idealism insists, as not only the controller but also the creator of all things, — even of the body on which it appears itself peculiarly dependent.

And, finally, there remains to notice that wide but vague realm of relations upon which a certain form of "animism," so-called, chiefly relies. Of mood, disposition, temperament, etc., as psychical affairs, — as certain characteristic and persistently recurring forms of consciousness, — a fair amount of knowledge exists; far more, indeed, than of the conjectural physical basis which may be supposed to correspond to these same terms. Why, then, should it not be held that every soul moulds its own body to suit itself? The affirmative answer to this inquiry seems at first sight to be captivating. It is, however, opposed by all those facts upon which Materialism and Dualism rely. Still, there are many of the facts upon which it does rely that must undoubtedly be taken into our total account. And the constant and dominant influence upon the organic functions which is exercised by temporarily or permanently existing mental moods is, in not a few cases, the one most impressive thing known to be true concerning the relations of body and mind.

¹ On this subject see the exceedingly interesting chapter of Professor James, "The Perception of Reality," in "The Principles of Psychology," vol. ii.

CHAPTER IX

MATERIALISM AND SPIRITUALISM

THE polemical discussion of this and the following chapters should be prefaced by two remarks which are understood to apply to it throughout. And first, the terms employed to designate the metaphysical theory which is defended, as well as those to designate opposed theories, should be freed from the influence of all prejudice, not to say opprobrium. The meanings with which these terms are to be employed will be somewhat strictly defined; and the effort will be made to remain faithful to the same meanings throughout. And if we, on our part, are not frightened away from a certain form of Dualism by the disfavor into which it has of late fallen, or made angry by the lofty assumption of "scientific" superiority with which its final departure from the arena of metaphysical contention is sometimes announced, neither ought any of our opponents to be angry or frightened at being called "materialists." If Dualism, in the form in which it will be maintained, cannot hold its ground by appeal to facts and by clear and logical thinking, why, then, of course let it retire from the field. Though why its retirement as a defeated contestant for scientific and philosophical honors should be considered particularly disgraceful, it is difficult to see. So, too, if Materialism or Monism cannot hold the contested territory in an equally honorable way, why, then, let them retire. We shall be among the last either to boast of victory and claim exclusive

right to the title "champion of modern science," or to insult a fallen adversary. Let it be left to men like Herr Büchner to talk about the "strangled snakes" of theology and metaphysics lying "around the cradle of the young Hercules," modern science; and to youngsters who are fresh from their theses as candidates for a doctorate in philosophy to affirm (for example) that Monism is the only scientific doctrine in *these* days. As for us, we acknowledge influence from no kind of "*phobia*" whatever, — unless, indeed, it be the fear of a pretence of science, or of the misleading use of ambiguous and mystical language in the support, *only apparent*, of cherished tenets of the popular faiths.

But, second, it should not be forgotten that the present discussion is confined to the relations of the human body and the human mind. We are not now seeking a theory of the relations of all so-called matter to mind in general, or of the relations of all finite being, both material and so-called psychical, to Absolute Being, or the "World-Ground." *Monism in the macrocosmus, the Universe, does not necessarily, by any means, imply Monism in the microcosmus, man.* Indeed, one might take the position of the materialistic Monist, or of the Pantheist, with reference to this larger and all-inclusive philosophical problem, and yet consistently maintain that so far as distinct finite beings can be spoken of at all, the phenomena of the mental order and those belonging to the so-called body connected therewith have a dual rather than a unitary ground. On the other hand, psychological dualism — or dualism as the metaphysical explanation of the two orders of phenomena in the life of man — does not debar one from the position of a Monist when attempting a theoretical construction in explanation of all experience; that is, a system of philosophy which includes all orders of facts.

The phenomena referred to in the previous two chapters are explained in accordance with that metaphysics of mind which the still earlier chapters established, only by a dual-

istic hypothesis. At the beginning of the discussion it appeared that Dualism is the metaphysical view which the multitude virtually adopt; and that it is also the metaphysical position which must be taken by every student of any of the particular sciences — psychology, no less than all the other sciences — who wishes to deal with the phenomena in the most strictly scientific way. The detailed study of all those phenomena which have a special bearing on the problem of the relations in reality of body and mind does not alter essentially this metaphysical position, or the philosophical conclusions which follow from the survey which it affords. Psychological science tells us what *are* the mental phenomena; it discovers their factors as known by the most searching analysis, their genesis and order of arising in consciousness. Physiological and psycho-physical science speaks in detail of the portions and functions of the body which are correlated with the different classes of mental phenomena, and with their genesis and order of arising in the stream of consciousness. In its modern form physiological psychology emphasizes the structure and functions of the nervous system, and especially of the higher cerebral centres, — both as the ultimate determining antecedents or concomitants, and also as the ultimate determined concomitants or sequents of the mental phenomena. It discloses something (but not, as yet, a great deal which can properly be called science) of those peculiarities of the structure and the functions of the nervous system that are specifically connected with the different kinds of mental phenomena. It may hope to know more, if by patient and diligent but cautious and modest research it shall merit this reward.

Any increase in the conquests of psycho-physics and physiological psychology, however far it may extend, would seem, however, only to substitute a more scientific dualism for the popular dualism respecting the relations in reality of body and mind. Suppose, for example, that the whole

domain occupied by the various classes of correlations between these two kinds of phenomena had been investigated and reduced to formulas in terms of exact science. Still it would be a *complete scientific dualism* which would result. The chasm between the two kinds of phenomena would not have been in the least degree narrowed, or at all bridged over. Not so much as a stringer, or a small cord to which a stringer may now be attached, would have been shot across that chasm. Nor, as we have repeatedly said, would the metaphysical import of the phenomena have been altered. Physiological science would still describe the bodily structure and functions — including the most subtle texture and delicate operations of the cerebral mechanism — in terms of physical science, and as belonging to a physical being, in terms of the metaphysics of physics. Psychological science would still describe the mental phenomena in terms that have a unique meaning and are peculiar to itself, and as belonging to a psychical being, in terms of the metaphysics of psychology.

It would appear, then, that the final words which science and philosophy (*unless philosophical speculation be extended so as to consider both body and mind in their relations to the Absolute or "World-Ground"*) can utter on this subject must be something like the following: The human body is a vast collection of material elements whose characteristics and changing relations admit of description and explanation in terms of chemical, physiological, and other forms of physical science. It belongs to biology to investigate its genesis and development. Its reality is only such as is characteristic of those elements of a material kind which enter into it; its ideality is only formal and partial, in that meaning of the word "ideality" which properly applies to all physical beings. Its unity also is only formal and temporary. The mind of man, however, is a unique being, self-known to be of another order, and to have "reality," "ideality," and

"unity" in the meaning of those terms which has already been sufficiently explained. Its characteristics become manifest in development. *It really is what it becomes*; its chief capacity and sole original faculty may be said to be that of running a unique course of history, — a progressive life-process in time. This unique being called "Soul," or "Mind," sustains a variety of relations to the physical being of the body. Dependently determined transactions in the two beings, as thus defined, are constantly taking place. What they are, and the formulas which express them, can only be known as the result of the requisite scientific inquiry. But these relations may fitly be spoken of as *causal*, just as all similar relations may be; nor is this to the prejudice of the reality of either of these two related beings, or to the reality of the transactions. Indeed, it is only as reciprocally determined transactions in real beings that similar relations can be considered at all.

As we have elsewhere ¹ said, the reality of the development of that unique order which is called the Mind can be understood only if it be regarded as "*the progressive manifestation in consciousness of the life of a real being which, although taking its start and direction, as it were, from the action of the physical elements of the body, proceeds to unfold powers that are sui generis, according to laws of its own.*" Yet it is not inconsistent with this, but is rather a part of the same truth, when it is also said: "*The assumption that the mind is a real being, which can be acted upon by the brain, and which can act on the body through the brain, is the only one compatible with all the facts of experience.*" ² Knowledge on this subject which goes beyond these and similar declarations is not, it would appear, to be had. Wisdom that is more profound or lofty cannot be attained; it is certainly not to be found in those imposing terms of modern science which, when ex-

¹ Elements of Physiological Psychology, p. 632.

² Ibid., p. 667.

amined, state the same ultimate facts in a less intelligible way, and as combined with certain unintelligible or unwarrantable metaphysical assumptions. Nor does it yet appear how we are ever going to get above, beneath, around, or behind the mystery of such ultimate facts in science and philosophy.

Different conclusions from those just announced are, of course, to be found as rival claimants to the allegiance of thoughtful minds, both throughout the history of philosophy and at the present time. All forms of speculative opinion regarding the real relations of man's body and mind may be reduced to four. These are Materialism, Spiritualism (of the monistic kind), Monism, and Dualism. The former pair agree in referring all phenomena — both the so-called bodily and the so-called mental phenomena — to a single real being of an order to which one of the two classes of phenomena immediately and obviously corresponds, as their ground. Materialism maintains that the body (or more especially the nervous system, and above all the brain) is the one reality *of* which both kinds of phenomena are, and *to* which they must be referred. Monistic spiritualism makes the reverse claim.¹ It claims that the so-called body has only a phenomenal existence; the body is but a series of phenomena that are indeed of a special order, but are phenomena *of* the reality called Mind, and are to be referred *to* such reality as their sole ground. Both Materialism and Spiritualism thus agree in acknowledging the existence of one kind of real being only; they agree also in identifying this one kind of being with the known being of *either* the body *or* the mind. In respect of their metaphysical implications they may be said to be at least intelligible; while Monism in its current form is certainly not intelligible. There is therefore a certain satisfaction in dealing with these two theories of the relations of

¹ In spite of several obvious objections to the use of the word "spiritualism" in this way, we know of no equally appropriate word to employ.

body and mind. The existences about which one is talking, whether in defending or in controverting either theory, are at least manageable in terms of knowledge common to all parties. But here, again, the case of Monism is not so.

For the third form of speculative opinion respecting the relations in reality of the body and mind of man, we have reserved the name "Monism." This term, therefore, does not cover simply the assertion that body and mind — commonly thought of as two real existences of a different and in certain respects opposed order — are in reality only one being. For this, it has just been seen, both Materialism and Spiritualism agree in affirming. But Monism, as the term is now customarily employed, holds that both body and mind, as known by perception and by self-consciousness, are phenomena *of* one and the same real being, which *is*, however, *neither* of the two. Both kinds of the phenomena into which the diremptive process connected with all human development separates experience on this point are to be referred to one and the same being; but this being is not the body and is not the mind. Since body and mind are both phenomena *of* this one being, they are thought to be properly spoken of as its two "aspects" or "faces" or "sides." The inferred or assumed reality is then spoken of as "two-faced" or "two-sided," — an "identity-root" of being, as it were, in which body and mind, as known, both alike have their ground.

The fourth form of a metaphysics of mind and body, in their relations, is that Dualism whose positions and conclusions — except so far as they are further evinced by the critical treatment of rival theories — have already been defended and discussed.

The position of Materialism with reference to the relations in reality of man's body and mind is reached as the result of a narrow and exaggerated, or even exclusive, estimate of certain phenomena, with the accompanying use of a naïve and uncritical metaphysics. It may, therefore, best be

refuted by following it along the line which is customarily pursued in the attempt to establish it. It is only, however, when a critical treatment is given to its crude metaphysical foundations, that the whole superstructure of materialism falls into a heap of unorganized rubbish. Glimpses of this truth have already been had. It has been seen how the attempt to establish materialism as a form of phenomenalism inevitably leads to solipsism, which is the very opposite idealistic extreme from the position from which the argument of materialism sets out. For this reason, and because few writers can in these days be found willing consistently to avow and frankly to defend (taking to themselves whatever opprobrium still attaches to its name) the tenets of this speculative theory, we need not enter into great detail.

The facts upon which Materialism builds its conclusion that the phenomena of consciousness—including those of self-consciousness and knowledge, with all of metaphysical inference or “faith” which the very nature of knowledge involves—are dependently connected with the brain-states must be admitted; they are of the order presented under the second class in the last chapter. But even in the endeavor to maintain a strictly scientific attitude toward all the phenomena, it becomes necessary to admit that *all* the phenomena do not point equally clearly in the same direction. In fact, an almost or quite equally numerous and impressive class (those of the order treated as third in the last chapter) point in the opposite direction. Many undoubted facts, at any rate, warn us against a hasty generalization to the effect that the being of the brain, with its states, is the only reality to be recognized. Even if the existence and functions of the brain were sufficient to afford the full metaphysical explanation (as it certainly is not) of those states of consciousness whose genesis and character are known to be dependent upon bodily causes, there would still remain to be explained certain other facts of experience

where bodily states are equally clearly known to be dependent upon states of consciousness. Now, when Materialism is brought face to face with this latter class of undoubted facts it, as a rule, adopts one of two or three unworthy and not quite honest modes of procedure. For either (1) it passes over in entire silence the scientific and critical consideration of these facts; or (2) it so minimizes and presents them as to break the force of the inferences which most naturally, and indeed in some cases necessarily, flow from them; or, finally, (3) it assumes or asserts that they too, like the facts of the order which do distinctly favor its conclusions, must be explained by the materialistic hypothesis.

The first two of these three modes of procedure are so obviously unwarrantable, and the correctives and supplements which they need have already been so fully presented, that we shall pass them by as sufficiently refuted. But with the other favorite trick of the advocates of the materialistic hypothesis a few words may fitly be read on the matter of fair dealing.

There are innumerable cases where, in the clearest flowing stream of consciousness we know that our ideas, feelings, volitions, and mental moods are followed by corresponding modifications of the conditions of observable bodily organs. By physiological and psycho-physical researches we are led to the knowledge (knowledge, although as yet much mixed with half-certain inferences, with doubtful conjectures, dim surmisings, and a horde of myths about molecular existences and doings, which will perhaps some day, perhaps never, be cleared up) that these modifications of the external bodily organs are dependent upon preceding changes, of a certain order, in definite regions of the central nervous system. At once then, by a sort of blind rush or sudden *tour de force*, does Materialism think to capture *this* order of phenomenal relations also. It assumes and asserts that these states of consciousness which are known in our more obvious expe-

rience as determining the sequent bodily states are themselves only phenomena *of* the brain. As known mental states, they are thus correlated with wholly inferential and largely conjectural brain-states. This is little better than to say, "I need these facts as proofs, and I take them because I need them." Not only the facts which seem favorable to the hypothesis, but also those which (at first flush certainly) seem unfavorable to it, are declared to be explicable solely in terms of the same hypothesis. But it would seem that the hypothesis itself, if it is to be entertained at all as a hypothesis even, ought to be suggested by, and not to be the very opposite of the one suggested by, a full half of all the known facts.

But it may be replied, Has it not just been admitted that "the phenomena of consciousness — including those of self-consciousness and knowledge, with all of metaphysical inference or 'faith' which the very nature of knowledge involves — are dependently connected with the brain-states?" And are not these particular "ideas, feelings, volitions, mental moods, etc.," which have the appearance of being themselves the antecedents or causes of bodily changes, "phenomena of consciousness" too? And if they are phenomena of consciousness, why should it not be at least a tenable hypothesis which ascribes them to the productive activity of the brain, in accordance with the materialistic tenets?

What, however (we urge in opposition), does all this amount to more than to say that if you grant to Materialism all that it demands, then it may possibly be carried to such an extent as conjecturally to account for all the phenomena? The fact still remains, however, that certain phenomena seem diametrically opposed to it; and that these are as well assured as those that seem to favor it, and upon the basis of which it undoubtedly as a matter of fact sets out to establish itself. But what is here asked for may turn out to be

altogether too much to grant, especially since it seems to implicate a whole system of metaphysical assumptions.

Among the metaphysical assumptions of Materialism may readily be detected the following: (1) There is no real being to be called mind; but the body, with its nervous system and central organs of the brain, is the *only* real being. (2) The brain *does exist* really; and (3) It is the *cause*, or explanatory ground, or accountable agent, for the phenomena of consciousness. Each one of these assumptions, however, requires critical examination. The second and third cannot be granted — true as we are ready to admit them, in part, to be — without involving the refutation of materialism. The first is false, as the whole of the preceding treatise has aimed to show, as everybody believes, and as the claims of a spiritualistic monism (which are valid in refutation of materialism, however unable to establish their own complete sufficiency) successfully maintain.

Hitherto it has been assumed that the materialistic hypothesis can explain *some* of the facts of consciousness, however insufficient or doubtful its explanation of other facts of the same general order must be held to be. But now this apparent concession must be retracted; it is quite untrue and even unintelligible in the form in which Materialism needs it in order to establish itself as a tenable working hypothesis. All the phenomena of consciousness — those favorable to the materialistic tenet as well as those unfavorable to it — are quite inexplicable without reference of them to the one subject of them all, — to the so-called “mind.” As phenomena, they are phenomena of the mind; none of them can be for a moment considered as phenomena of the brain in any sense of these words such as the materialistic hypothesis requires. In support of this general declaration two main classes of reasons may be alleged. First, the utter disparateness and incomparability of mental phenomena and those phenomena which are scientifically known to be

exhibited by the brain; and, second, the fact that materialism cannot even state, in an intelligible form, its conception of the real relations between mental phenomena and that existence which it calls the "brain."

As to the incomparability of the two classes of phenomena—the phenomena of consciousness and those phenomena of extension, motion, weight, inertia, etc., which belong to the material substance of the brain—there can be no dispute. And, in truth, no one is found to dispute the mere fact of incomparability. So long, then, as attention is kept concentrated on this fact, those who take the materialistic position as a speculative hypothesis may instantly be recalled to an agreement on a fundamental point with the most pronounced advocates of the spiritualistic view. He who finds in matter the "promise and potency" of every form of life, including the psychic life called mind, freely confesses that he knows of no "rudimentary organ" even, whose development may by and by enable us to bridge over the chasm between the most refined physical changes in brain-states and the simplest psychic fact of a sensation, or of an idea, arising in consciousness. That is to say, chemico-physical changes in the nervous substances belong to one order of phenomena; they are molecular and atomic movements in a material thing. Correlated changes of consciousness, as such, belong to another and different order of phenomena; they are mental; they are not molecular and atomic movements; they cannot be conceived of as being, or as becoming, or as arising out of, molecular and atomic movements. Here, few materialists, if any, would dissent from the following statement of the most pronounced of modern spiritualists in philosophy, Hermann Lotze:¹ "However far we pursue the course of the sense-excitation through the nerve, in however many ways we suppose its form changed and converted into ever finer and more delicate

¹ *Microcosmus*, vol. i. 148.

movements, we can never prove that it is in the nature of any movement so produced to cease as movement of its own accord, and to reappear as a bright color, as a tone, as a sweet taste. The chasm is never bridged over between the last state of the material elements within our reach and the first rise of the sensation; and scarce any one will cherish the vain hope that at a higher stage of development science will find a mysterious bridge in a case where it is the impossibility of any sure crossing-over that forces itself on us with the most evident distinctness."

But as matter of fact also there is almost as little that can be urged against the unanswerable truthfulness of the sentence which Lotze immediately adds to those just quoted: "On the recognition of this absolute *incomparability* with one another of physical events and conscious states has always rested the conviction of the necessity of finding a special ground of explanation for psychic life." These words simply state, in an unnecessarily cautious way, the fact that all men, following the inevitable laws of the development of self-consciousness, ascribe conscious states as such to the self-knowing subject of them, to the mind whose states they are. But inasmuch as states of the brain can be known only as inferred or conjectured changes of the order perceived to take place in things, as distinct from the Self, they ascribe those states to a particular kind of thing called the brain.

This "conviction of the necessity of finding a special ground of explanation for psychic life" operates both positively and negatively against Materialism, — positively, when we have regard to the nature of self-consciousness; and negatively, when we have regard to the nature of that perception through which knowledge is gained of the brain. What self-consciousness affirms is the attribution of conscious states to a Self as their subject, or ground, whose states they are. Or if one pleases to use language more

impressive in the contention against materialism, self-consciousness *is* the affirmation that all states of consciousness are phenomena *of* the mind, or Self, and *not* of some bodily organ or part, or of some extra-bodily thing. Conversely, the perceptions of the qualities and changes belonging to the bodily members, including the nervous system and the brain, and (since immediate knowledge by the senses is rarely possible on this subject) the subtle scientific inferences which, upon the basis of perceptions, extend toward the knowledge of these qualities and changes, *are* all affirmations of other phenomena (extension, motion, weight, inertia, etc.,) as belonging to a material substance, and as *not* of the Self, or Mind. But it has repeatedly been shown that it is this very distinction between the two subjects of the two orders of phenomena on the basis of which the entire discussion of the real relations of body and mind originates. Here again the metaphysics of Materialism is detected on the point of committing *hara-kiri*.

Suppose, however, that the necessity of "finding a special ground of explanation for psychic life" be for the moment overlooked, and indulgence be asked for the use of the current words by which phenomena of consciousness are referred to the brain as the sole really existent of which they are, then the question recurs as to how these words shall be interpreted. Let them be taken as figures of speech; still it must be possible to say what that is real is signified by these figures of speech. This, however, is what Materialism is forever unable to put into human language. It cannot set forth—that is to say—the relations that exist between the real being of the brain and its mental performances (the psychic states which the theory conceives of as belonging to the brain as phenomena of the brain) in terms which are taken from any analogous relations within the whole realm of human experience. By this it is not simply meant to say that relations between brain-states and conscious

states, or even between conscious states and the substance brain, are unique; that the relations themselves, as relations, are not strictly analogous to any other relations. Every metaphysical theory respecting body and mind may be compelled to admit thus much. It is meant, the rather, to affirm that the use of all words which suggest themselves, or are actually employed, to set forth these relations in materialistic terms, is inherently unintelligible.

In this connection it is worth while somewhat further to consider the inappropriateness and even the impossibility of applying the term "subject" to relations between the brain and the conscious states. Indeed, what conceivable meaning can be attached to such a declaration as this: The brain of *A* is really the "subject" of the particular feelings, thoughts, and volitions — *a*, *b*, *c*, *d*, etc. — that constitute the stream of consciousness which the so-called mind of *A* actually assigns to itself? Certainly the experience from which is derived the conception of what it is to be the "subject" of states consists in the very activity which attributes mental states to the *Ego* alone as the subject of them all. Only analogically can this particular relation that exists between states and the subject of them be projected upon physical beings like the brain; and in doing this the relation remains meaningless until it is interpreted back into our experience with ourselves.

Only in an analogical way, indeed, can the brain be said to be the subject of *any kind* of states; but in no way whatever can it be said to be the subject of *conscious* states. To speak of the brain as the "subject" of the phenomena of consciousness would, then, be something far different from a warrantable use of a figure of speech. It would be something different from even a perversion in the use of a sometimes warrantable figure of speech. It would be the destruction, in the very act of making use, of all the real meaning which renders possible any such figure of speech. *I am the subject of*

my conscious states; and they are *mine*,—*my states*. To be self-conscious is not only to have conscious states, but to attribute them to the Self as its states; and nothing else except this actual psychical experience, which is all *in* consciousness and all *of* consciousness, corresponds to the relation which is fitly described as “being the ‘subject’ of conscious states.”

What words, then, shall Materialism employ to express its conception of the real relation between the brain and the conscious states so as at least to make its theory understood? For, surely, we have a right to insist on something that can be grasped by thought. In reply, it may be suggested that terms like “generation,” “production,” “function,” or “elaboration,” etc., will fitly apply to this case. Thus Vogt is bold enough to declare that “as contraction is the ‘function’ of the muscles, and as the kidneys secrete urine, so and in the same way does the brain ‘generate’ thoughts, movements, and feelings.” And M. Luys, Dr. Maudsley, and others are fond of speaking of the “elaboration” of sensations as taking place in the lower regions of the brain, and of thoughts and sentiments in the higher regions. Here the words “lower” and “higher” are locally considered; and the psychical products are spoken of as corresponding in some sort to the different products, or stages of the same product, which might be elaborated in the successive stories of a mill for cotton, woollen, or silk fabrics. But in the interests of scientific thinking we shall continue to insist upon attaching definite conceptions to such words as these, when they are employed to set forth the relations between body and mind. With these interests in view, let us then give a brief examination to Herr Vogt’s dramatic declarations.

It will be observed that in the one sentence just quoted three words are employed; and the declaration is added that these all express essentially one and the same relation. These three words are “function,” “secretion,” and “genera-

tion." Two of the three ordinarily stand for perfectly definite and well understood physical processes. When it is said that the kidneys "secrete" urine, it is meant, of course, that a certain physical substance which has properties that can be measured and tested in chemico-physical ways results from certain physical processes in the substance of a certain bodily organ. Both product and producing agent belong to precisely the same order of beings; and the processes in which the relation between the two consists can be traced by sense-perception. With this meaning of the words we can fitly use the term "secretion" as applied to the human brain; we can say that as "the kidneys secrete urine," so and in the same way does the brain secrete the serum found in its ventricles, etc. The word "generation" expresses another sort of relation between two kinds of physical substances. In its primary meaning it involves certain products of secretory and other processes in the bodily organs, a union of these products, and then that mysterious development of cells from cells in which the growth of the embryo consists. It is, however, quite appropriate to apply the same term to that relation which exists between the new cells of any tissue and the old cells; since by growth, bifurcation, proliferation, etc., of the former the production of the latter takes place. It might then fitly be said that just as the other tissues of the body keep themselves alive, or increase in volume by generation of their own like, "so and in the same way" does the brain "generate," not thoughts and feelings certainly, but new nerve-cells and nerve-fibres, neuroglia, and the like.

Now it is possible that even this brief attention to such "palpable nonsense" as that of Herr Vogt will prove irritating to some readers. If so, let the question be raised whether the position of Materialism is any less really absurd when it is not so palpably absurd as the use of the coarser materialistic terms is wont to render it; whether, indeed,

its real absurdity does not consist in its complete inability to express its view of the relations between brain and states of consciousness in any intelligible terms whatever.

The word "function" certainly seems to promise some relief for this most severe strain upon the understanding. It is a vague and sufficiently indefinite term; it is thus capable of being used with a more soothing and captivating effect. It is perfectly evident, however, that thoughts and feelings cannot be considered as the "function" of the brain "in the same way" as "contraction is the function of the muscles." For the obvious fact which is expressed when contraction is spoken of as the function of the muscles is that these bodily members are actually perceived to be sometimes longer and thinner, and then again shorter and thicker; and this obvious fact physiology accounts for by ascribing it to a rearrangement of the molecules following upon stimulation through the sensory nerve-fibres — depending upon the conversion of stored into kinetic molecular energy, and back again. Now, there are, in fact, no functions of the brain that go on in precisely "the same way" as this function of contraction in the muscles. For such irritability and contractility is the peculiar function of the muscles. But in a similar way — that is, as a rearrangement of the molecules, possibly connected with increase and diminution in certain localities or dimensions of the organism — the brain has the physical function of sudden molecular movement. But such a function is no more like the function of thinking or of feeling, as it belongs to the mind and consists in processes in consciousness, than is the contraction of the muscles. Indeed, here again as always we come upon the complete incomparability of the phenomena, or functions, which belong to the two orders of beings. Brain is somewhat like, but never wholly unlike, muscle in its functions; that is, both consist of molecular changes; but both are equally and totally unlike mind.

If, however, one chooses to use the word function to express the fact that as the conditions of the brain — the brain-states — vary, so (that is, in correlation with or dependence upon them) do the conscious states vary, why, then, this relation may be admitted as a fact. But the relation does not account for itself. In truth, Materialism in announcing the relation is only saying over, in other and less clearly intelligible terms, the very facts for which it assumes to give an account.

Not less unintelligible, really, is the conception which Materialism would encourage us to form by use of such words as “elaboration,” “production,” and the like. What that corresponds to any conceivable relation in reality between the brain and conscious states is expressed when we are told that sensations are “elaborated” in precisely such centres of the brain, and thoughts and feelings in such other centres. By the elaboration of *sensory processes* — that is to say, nerve-processes which are correlated with or causally related to sensations considered as states of consciousness, or modifications of sense-consciousness — something is understood about which exact knowledge is conceivably obtainable, something also that can be compared with other forms of so-called elaboration. The chemico-physical molecular changes become, as they reach the brain-centres and spread through them, more and more complex, in dependence upon the chemical constitution, histological structure, and physiological functions of the substance composing these centres. But in all this process of elaboration the nerve-processes do not become more elaborate considered as sensations or psychoses, — and this, for the very good reason that they do not become any more like sensations, or any other form of psychoses. Only by the most glaring subreption, by a dishonest smuggling-in of the very thing which it was promised should be explained, can one speak of any form of psychoses as being elaborated by the brain. On the other hand,

what it is to elaborate thoughts, feelings, and plans is perfectly well known by everybody, in accordance with abundant experience. But such a process of elaboration goes on only in consciousness; it is apprehended and explained only in terms of consciousness; and if it is to be ascribed to any agent as the elaborator, that agent must be the self-conscious subject of all the conscious states.

Nor is the term "production" any more favorably to be regarded than are those which have already been examined. The production of any piece of mechanism consists in that new form given to pre-existing material which is due to the operation of the mechanism upon the material. If it is a case of the product of any of those molecular mechanisms which are known as the organs of the human body, the relation between organ and products is precisely the same as that which has already been considered under the terms secretion, generation, and function.

Finally, none of the phrases devised by those who do not wish to be understood as espousing Materialism, and yet who hold to the psychological positions which were examined in the first chapter are one whit better or more intelligible. What, for example, can be meant when we are told that the brain must be regarded as "throwing off" the entire mental state considered as a psychical unity? [Let it be insisted upon again that no fault is found with the use of figures of speech when employed to indicate intelligible real relations. On the contrary, it is maintained that *the real relation which Materialism attempts to establish is itself essentially and forever unintelligible*; and that all figures of speech, however suggestive and seductive, are mere words without meaning when employed to set forth the fundamental metaphysical tenet of this theory.] It appears, then, that there exists as little of a "rudimentary organ" for conceiving, in materialistic fashion, the relation between brain and conscious states as for conceiving of the comparability or identity of the two

kinds of phenomena. But this amounts to saying that the theory *cannot define the relations in reality between body and mind without assuming the existence of the very being which it sets out to deny*. For when it is discovered what its terms mean, they are found to assume the dependence of phenomena belonging to one subject or ground upon changes in another subject or ground. That is to say, the "conscious subject," and not the brain, generates or produces or exercises its peculiar function in the form of certain sensations, thoughts, and feelings, rather than others because of its dependent connection with the brain and with its functions and generated products. And as to anything more than this, materialism cannot tell what it does mean. It begins, then, by denying the existence of mind; but it admits the incomparability of the two orders of phenomena. On attempting, however, to assign the origin of any mental phenomena to a being whose whole nature is definable only in terms of other incomparable phenomena, it finds no words appropriate to express its metaphysical tenet. Terms that are fit to indicate the relations of the brain to its own states are, on account of the incomparability of the phenomena, totally unfit to express the relations of the same brain to states of consciousness as such. But terms which would be fit to express the relation of states of consciousness to the being that generates or produces them (to their subject) imply the real existence of the mind.

Thus far the argument has not been irreverent and sceptical toward the metaphysical idol of Materialism. No attack has been made upon the real existence of the brain. The word "brain" has been allowed to stand for somewhat which counts in the realm of the really existent, although we have declined to worship it as the god which the materialistic hypothesis demands. But suppose that from the point of view of the phenomena as a scientific psychology presents them, the advocate of the spiritualistic hypothesis grows grudging and

agnostic; suppose that the iconoclastic temper be let loose against this idol of materialism, — it will not be long before the jeering cry of a metaphysical Idealism is heard, saying to its rival theory, "Where is now thy god?" For from the idealistic point of view, what is this brain which is so boldly brought forward as the secreter, generator, or producer of the life of consciousness? As a thing scientifically known, it can scarcely be denied that the brain is only a certain collection of physical and chemical characteristics that must be described in terms of sense-experience, or of more or less weird creations of imagination and intellect. But psychologically considered, all sense-experience is resolvable into conscious states; and so likewise are all activities of imagination, whether it be engaged in picturing furies and dragons, or molecules and atoms; all inferences of intellect as well, whether they reach out toward unseen brains inside of perceived skulls or toward the unseen God immanent in all finite existences. Now, the brain as a reality, a mighty generator or secreter of conscious states, appears from this point of view to be itself only a phenomenon of the mind; it is itself an image and an inference "generated" by psychic activities within the ever-flowing stream of consciousness. As scientifically known, — since all *knowledge* is of mind and in mind, — the brain is itself generated, not generator.

Such indeed, is *all* that the brain is or can ever be, without faith. For Materialism, like all other metaphysics, must be "saved by faith," if saved at all; and it may turn out that even thus it can be saved only, as it were, "through the fire." It is only that mysterious form of mentality, to which psychologists have given so many names, — calling it sometimes "belief in reality," sometimes "the perception of reality," sometimes "instinctive inference" to reality, and classifying it now with the intellectual and now with the emotional and now with the conative activities, — that

imparts to the so-called brain, as to the entire physical world, all the actuality which it can claim before the mind to have. We have spoken of "a form of mentality," — because perception, belief, instinctive inference, are all *mental* processes. As was said long ago (see pp. 114 f.), only as being is implicated in knowledge does being exist for us. This is as true of the brain as it is true of other physical beings. Its *extra-mentality* is immediately dependent upon that activity of faith which is a "moment" in certain conscious states. On what, then, unless it be upon the exercise of a narrow and bigoted faith, does the materialistic hypothesis depend to contradict the larger, more precious, and more convincing faiths that make valid its own complete contradiction? ¹

Monistic spiritualism, from the point of view of scientific psychology, has an undoubtedly great advantage as a satisfactory philosophy of mind over materialism. It is only when critical attention is directed toward its metaphysical implications and its logical and legitimate outcome in a complete metaphysical system, that this theory of the relations of body and mind is seen to be unsatisfactory. For from the psychological point of view all the objective and most completely "extra-mental" side of experience must be considered as belonging, equally with the most subjective and completely "intra-mental," to the phenomena of consciousness. Things are known to be *what* they are only in terms of knowledge; indeed, to say this is tautological, but to attempt to say anything which contradicts this is to attempt the unintelligible, the absurd. *That* things really

¹ Some readers may be inclined to be wearied at what appears to them excessive polemical effort bestowed upon this form of theory; especially since few writers are now found to accept the title "Materialists," or to advocate openly its tenets. I must, however, be allowed to claim a clear apprehension of my own aims, and of the prospective value and present need of such polemics. The number of real materialists is by no means to be measured by those who accept the name, much less by the number of those who take the pains to think out the issue of the psychological and philosophical positions which they espouse.

are can be known only as it is somehow involved or implied in all knowledge. But knowledge itself is, and ever must be, a passing process in consciousness. And all this is as true of the knowledge of brains as it is of the knowledge of any other material thing; indeed, few material things require so much work of imagination, of inference, and of "faith-faculty" as does this so-called human brain, with its peculiar alleged constitution and functions. This line of argument has just been used to complete the refutation of materialism; used in this way, it is quite unanswerable. It is not, however, equally satisfactory for establishing the conclusions of monistic spiritualism.

In the critical consideration of this second form of conceiving of the relations of body and mind, it is well to refer back to the facts to be explained. These facts are fully set forth only in connection with the recognition that, while all knowledge as such is undoubtedly a mental transaction, knowledge itself is just as undoubtedly both *of* things and *of* Self as two different and, in certain important respects, incomparable kinds of beings. Perception is, indeed, for psychology a mental process; and its product is a mental achievement. But knowledge by *perception* is attained only as the object perceived is set "out of" the Self and regarded as having those attributes of extension, weight, inertia, etc., and that capacity of movement which it is inconceivable should also be attributes of the Self. That is to say, we here come again, although from the opposite point of view, upon the incomparability of the phenomena, — and so upon the necessity of assuming a special ground for the physical phenomena.

As a matter of fact, monistic Spiritualism does not offer the slightest valid scientific explanation for two of the three classes of phenomena referred to in the last chapter. When its advocate takes the position of the student of science, he describes and explains innumerable changes in the con-

scious states — their constitution, so to speak, their arising, sequence, and passing away — precisely as does the materialist. He, too, can tell why the stream of consciousness is troubled, or ceases to flow, when the arteries of the neck are compressed, only by appeal to the causal influence of the brain as an intermediate factor. But this brain no more comes into his conscious states, in the form of a perception, than into the conscious states of the materialist. Why, then, does he acknowledge the absolute necessity of inferring it, and the hypothetical states in it, as accounting for the existence and character of all conscious states? As he pursues the scientific study of mental phenomena from the points of view of modern physiology and psycho-physics, he too becomes unavoidably more and more impressed with the importance, for conscious states, of the chemico-physical constitution and behavior of this assumed material and “extra-mental” entity. In brief, as a student of scientific psychology he can no more explain the phenomena without this form of a working hypothesis than can the rankest materialist who investigates the same phenomena.

Now, it is possible for the advocate of this form of philosophical Spiritualism, as it was seen to be for the materialist, the moment he is alarmed by the scent of battle between metaphysical schools, to attempt a retreat to the entrenched position of thoroughgoing Idealism. Whereas materialism maintains that all mental phenomena, including those of the knowledge of Self, are secreted, generated, elaborated, or otherwise produced by the brain, the counter theory may maintain that all so-called material beings (including our own body as a perceived extended object, and its inferred inter-cranial content of a brain) exist only as generated and projected by consciousness into a space, — also generated by the same agent. It is not unlikely that materialism will have a much more difficult and expensive campaign upon its hands, if it comes into the open field

and lays siege to the spiritualistic stronghold, than would be found necessary when the relation of the contending armies was reversed. But in his anxiety to save his so precious "soul," even at the cost of forfeiting the real existence of his less precious "brains," what that is valuable and capable of sustaining life has the theorist taken with him into his citadel? He has indeed beaten his retreat in the interests of the same entities and verities that M. Flournoy esteemed so precious. To him, as to M. Flournoy, it is *souls* — his *Ego*, and the other *Egos* with their loves and hates, their memories and their hopes — which seem most worthy of saving from the destructive issues of the campaign. And if they may be saved, he too can well spare the "real existence of the very bread he eats." But to be consistent he has his own present *Ego*, and no other, for company and for sustenance in this impregnable stronghold. All other *Egos* are known to him only as existences inferred in the interests of explaining the changes that take place in perceived things. And they too with equal consistency may be considered, since they stand at the second or third remove from his conscious states, as but projected ideas, or rather as ideation-processes of a certain order, attributable to the Self as their sole ground.

In truth, the sole legitimate metaphysical outcome of a monistic Spiritualism is a complete solipsism. Still further, when somewhat more hard-pressed by rival philosophical theories, it manifests plain signs of a return to phenomenalism. For if that metaphysical "moment" — that belief, feeling, instinctive inference — which necessarily enters into all perception of things be not valid, the conclusion is not difficult that no metaphysics is valid. If the phenomena of the physical order, together with that attribution of them to a specific ground which all developed human consciousness naturally makes, may be regarded with such distrust of their metaphysical implications, why not the phenomena of the

so-called psychical order also? Why attempt to talk or think of entities either psychical or physical? The phenomena and the relations between them are all that can be scientifically known. But here, once more, we come face to face with the invincible and unchangeable incomparability of the phenomena as the very thing to be recognized and explained by all speculative theories of the relations between body and mind.

If, however, the advocate of Spiritualism still feels strongly the influence of considerations that originally induced him to accept his position, he is likely in some way to escape from the philosophical solipsism in which he finds himself. To be safe in the citadel with only his own soul seems unsatisfactory to him. In practice, the means of escape which this manner of warfare shows are various. One may soar over the walls upon the wings of the metaphysics of sentiment, or one may make a sally by some hitherto concealed avenue — some subterranean passage — of argument. But if one then escape the besieging hosts of Materialism, one is likely soon to be found in the camp of Dualism.

It must also be admitted that the language which the spiritualistic theory employs to express the relations of body and mind, if not so wholly unintelligible as that of the materialistic theory, is still far from being clear and satisfactory. It is not likely that any one will be found to parallel the absurdities of writers like Herr Vogt, and so speak of the mind as "secreting" the brain "in the same way" as that in which it secretes its own thoughts or feelings. Nor is this relative self-control wholly due to the obvious inappropriateness of such a word to express the relation of the subject of conscious states to either of the two classes of phenomena. A certain form of "animism" has held, indeed, a doctrine which might be likened to regarding the mind as the "elaborator" or "generator" of the developing bodily organism. But animism, as ordinarily held,

regards the body as a real existence; while it extends the meaning of the word mind so as to include all those forces and performances which biology deals with only in terms of the chemico-physical science of life. It thus brings upon itself the determined opposition of psychology on the one hand, and of biology upon the other hand. For if psychology departs from its characteristic and only safe point of view, which is "the description and explanation of states of consciousness as such;" and if it undertakes to use its peculiar principle to explain all the vital processes of the body from the impregnated egg onward till death, — then it not only finds itself wandering helpless in vast and unfamiliar regions where it can accomplish nothing for its own good, but it is sure sooner or later to fall into the hands of biology, as a kind of cannibal foe, and thus to be quite devoured. Modern biology, too, with its justifiable determination to deal with its peculiar problem in terms of chemico-physical science, finds the claims of this form of animism particularly offensive.

Something different from all this must of course be meant, if monistic Spiritualism ventures to speak of the mind as "elaborating" or "generating" the bodily organism. According to the distinctive metaphysical character of the theory, these words must be used to describe the relation existing in reality between the entity mind and the phenomena ordinarily supposed to have their ground in the body. "Generation" is, however, a word which is primarily adapted only to set forth certain relations between physical substances, or — in case the reality of physical substances be denied — between sets of phenomena belonging wholly to the physical order. In a figurative way the mind may perhaps be spoken of as generating the particular thoughts, feelings, and volitions which arise in the stream of consciousness. But if this figure of speech is employed to set forth the relation of the Ego to its conscious states, it must not be forgotten

that any interpretation of it into experience takes us at once back to the ultimate facts of self-consciousness. In other words, we really mean nothing more when we say that the mind "generates" the states of consciousness than we mean when we say that the very nature of self-consciousness is such as that the states of consciousness are all referred to the one subject called the "Ego," or "Self."

Now, inasmuch as all perceptions of the visible and tangible organs of our own bodies, as well as all inferences to the existence of the actually invisible and intangible organs of the brain, are *perceptions*, they too may be spoken of in the same figurative way as generated by the mind. One who aims to keep clear of all metaphysical assumption whatever, and succeeds in doing this, may perhaps satisfy one's self with such figurative statements as these. To speak of conscious mind as, by its perceptive and thinking activities, generating and elaborating its own bodily organs has certainly a ghostly sound. It can scarcely, however, be called absolutely devoid of all meaning as soon as the effort is made to interpret the figures of speech involved in this way of speaking. But, alas for any complete mental satisfaction in this form of the metaphysical spectre, — all *perceptions*, however psychology may feel obliged to regard them as mental states and processes, imply, as part of their very essence, the attribution of phenomena of an order incomparable with *mere* mental states to another kind of being as their ground! Inferred and hypothetical brains are as truly characterized only in this way as are stars and stones; and the metaphysical faith which enters into the very heart of the perceptive inference or hypothesis renders them to the perceiving mind in the form of extra-mental and material substances as persistently as it does stars and stones. So that here again the effort to conceive of the relations maintaining themselves in reality between mind and body, with only one of the two beings to serve as the ground of both

classes of phenomena, breaks in pieces against the invincible incomparability of the phenomena. There seems no other consistent and logical course open, therefore, except either to deny all reality to both kinds of beings, and so to the relations between them, — and thus to come around to phenomenalism again, — or else to admit that because we know the phenomena to be incomparable we require a distinction in their metaphysical ground. This is to affirm that we know both body and mind as alike real but incomparable beings because capable of entering into *such* known relations.

By similar trains of reasoning it may be shown that the terms “elaboration,” “production,” etc., do not adequately express any of the real relations in which the mind stands to the bodily organs. In other words, to perceive and to infer is not altogether the same as to generate or to produce. And there is a particularly ghostly sort of ineptness involved in using these words for the sum-total of the relations in which the mind stands to the material organism and to the physical functions of the body.

It clearly appears, then, that both Materialism and monistic Spiritualism are strong in attack, each upon the other; but they are also both weak in defence of themselves, each against the attack of the other. Yet they can scarcely be said to be equally weak in either attack or defence; for, on the whole, the spiritualistic theory has quite decided advantages over the materialistic. On the whole, its positions can be rendered both more intelligible and more defensible. It leaves to us, in the last extremity of our fight with the arch-enemy of all knowledge, — with agnosticism pushed to the farthest possible limits in distrust of all the activities and conquests of the human mind, — the “I-am-here-and-now-being” (*Ich bin hier und jetzt*) of the mind itself. And this is indeed the impregnable stronghold from which invincible reason may at any time come forth and conquer the

entire domain of knowledge again. But why this process of alternate retreat and forth-sallying should go on forever, it is difficult to see; unless Materialism and Spiritualism, as mutually destructive metaphysical theories, are to be the only outcome of the reflective philosophical mind.

It is, therefore, in the interests of admitting all the facts emphasized by both these imperfect theories, and also of escaping their one-sided and mutually destructive conclusions and tendencies, that psychological Monism sets up its claim to be the true and complete philosophy of the relations between body and mind.

CHAPTER X

MONISM AND DUALISM

THE discourse by which it is sought to commend that metaphysical theory of the real relations of body and mind for which the term "Monism" has been reserved, is ordinarily distinguished by two remarkable peculiarities. The first of these concerns the method employed to establish the theory. This method makes upon the thoughtful critic an impression corresponding to that described by Hegel's sarcastic criticism of Schelling's evolution of the Absolute, as though "shot out of a gun." Sometimes the theory is even proclaimed as the only theory which any one laying claim to scientific culture (*sic*) can creditably espouse; and this is done without any preparation beyond a vague reference to the success of modern psycho-physical science in discovering new and subtle correlations of mental and cerebral phenomena. Sometimes, however, it is introduced by a previous criticism of the rival theories of Dualism, Materialism, and Spiritualism. These rival theories having been found quite unsatisfactory, or even absurd and self-contradictory, Monism is then assumed to be necessarily true; for is it not the only possible remaining form of theory?

The argument from "last resort" is seldom very convincing; it has indeed something essentially undignified and invidious about it. Moreover, the particular way in which each of its three rivals is handled and dismissed becomes exceedingly instructive concerning the possible tendencies

and intentions of Monism itself. Dualism, as a metaphysical theory of the relations in reality of body and mind, is customarily treated by the monist with very special contempt. Indeed, the word "dualism" is apt to be employed in that vague, indefinite manner which is most convenient for any term to which feelings of peculiar opprobrium are to be attached. Spiritualism, as a philosophical theory dealing with the same relations, is in turn treated with scarcely less scant courtesy. It would seem as though the doughty knight of monism thought it quite enough to throw both Materialism and Spiritualism *hors de combat*, if the terrible black flag on which the principle of the conservation and correlation of energy is inscribed be brought upon the field and waved vigorously with accompaniment of much shouting. Materialism, however, often gets out of this battle with comparatively small real damage to its most essential requirements. It is indeed rebuked for its insufficient defensive equipment; but it is also often not a little comforted with phrases that can hardly be interpreted, and promises that can scarcely be fulfilled, without virtually granting certain of its most important claims. For the knowledge which monism imparts as to what are the essential characteristics of the "one being" whose "two aspects," or faces, or sides, or manifestations, are called respectively the body and the mind is much better expressed in quasi-material than in psychical or spiritual terms. Thus are we left with an ultimate choice between materialism and agnosticism as our final word on the problem of the real relations between body and mind.

Now, to speak plainly, it seems to us that less assumption and vociferation, and more of carefully developed and clearly expressed criticism, is a duty which may properly be laid upon the conscience of the current monistic theory. Dualism is, indeed, everywhere — except in scholastic circles where the somewhat artificial point of view of the student of psycho-

physics temporarily prevails — the accepted metaphysical theory of the relations of body and mind. The students of the chemico-physical sciences are also clearly persuaded of the reality of the body, and of the truth that it must be considered by them as a reality of the same sort as all material things are; it may therefore be held to be known as having the properties with which these sciences are accustomed to deal. Monism is, then, only one of several metaphysical theories; and it is by far the most scholastic and remote of them all from both the popular and the scientific points of view. It is scarcely, then, for this reason if for no other, to be adopted without thorough discussion of its claims to hold rightfully the field of critical philosophy. Now, in view of the wide-spread prevalence of monistic tenets among the most brilliant and accomplished writers of the age on topics in psychology and psycho-physics, and on the related metaphysical problems, it is undoubtedly a bold declaration to make, but we venture to make it: Not a single treatise, satisfactory as to its survey of facts and making the impression of soundness in argument, can anywhere be found in the defence of these tenets. This is why attention is here called to the method of monism in psychology as one of its remarkable peculiarities.

The other peculiarity of the modern monistic doctrine as to the real relations of body and mind concerns the character of the agnosticism in which the doctrine seems necessarily to end. We are assured — and this is the essential characteristic of the doctrine — that body and mind *really are one in being*; but that this unitary being must be thought of neither in terms of extension and motion, and as coming under the principle of the conservation and correlation of energy, nor as a self-conscious, thinking, feeling, and willing subject, after the analogy of mind. Both kinds of being about which all men know something — or think they know something — have now been merged in the identity of one

being; but about this one being men neither know anything, nor can ever hope to know anything. Indeed, if we are inclined to press the question, What sort of a being is this which is the ground of both body and mind, but is neither body nor mind, and is not to be described in terms derived from human experience with either body or mind? we are likely to be warned away with a lofty wave of the hand or a solemn shaking of the head. It would seem that the monistic hypothesis regards it as either profane or hopeless even to ask and press such a question. But so arbitrary a limit to the inquiries of human reason seems to us both unscientific and unphilosophical.

Now, every thinker upon philosophical problems should be ready to recognize the limits of human knowledge. And every reflective thinker upon the problem of knowledge itself — the epistemological problem — discovers that certain ultimates, beyond or back of which reason cannot go, must be recognized in the discussion of all philosophical problems. But after monism has made its metaphysical tenet appear before us as though “shot out of a gun,” why should we, without further examination, consider the substance discharged as belonging, not only to the realm of the supernatural, but even to that of the “unknowable?” The objections to such naïve agnosticism will appear more fully in the detailed criticism of this theory.

The genuine impulse to a defensible philosophical Monism begins precisely where this indefensible monistic answer to the problem of the real relations between body and mind would have us suppose the entire inquiry must end. For what is the situation in which a scientific examination of all the facts has left us involved? The so-called body of man is seen, on the one hand, to belong to the totality of the physical world; it is, in respect of the scientific account of its properties and functions, *quoad* body, just as truly ranked under the general class of the physical — the *non-psychnical* — as is any

other material substance. But the so-called mind appears to itself *as* mind only as it differences itself from the physical by the possession of properties and functions which are mental and *non*-physical. Yet this particular collection of material elements, which is really in a constant flux while remaining formally so similar as to be called the same body, is known to sustain peculiar and even unique relations to the mind. Certainly, then, there is need of one principle to bind into a unity, as it were, all the known facts and valid assumptions which this complex problem involves. For all physical things, including the particular physical thing called the human body, as well as the mind particularly related to such human body, belong to the *One World*. It is this world, in its unity and totality which philosophy aims to understand. We cannot, then, approve of a theoretical modesty which seems not only unnecessary but unfaithful to the legitimate task and natural destiny of philosophy itself. This task and this destiny would seem to be left altogether unfulfilled by the bare conclusion, based on the unique relation simply of man's body and mind, *that* one being serves — so to speak — their common ground. On a far broader foundation than this we should build securely, not only the knowledge that this one Being exists, but also the knowledge *what* the nature of this one Being is. Undoubtedly the body and mind of each individual, and all things and all souls that are, have their being in this "One Being." Philosophers call this Being the Absolute or World-Ground; and were this the place, valid reasons might be given for holding that this One Being is a self-conscious, rational Will, — the "personal Absolute whom faith calls God." It will be noticed, however, that the current psychological monism becomes dogmatic agnosticism at the very place where true philosophical monism begins to take hold on the terms of its problem. It will soon be shown that the theory is also of no use to psychological science

where this science most needs help; and, as well, that its metaphysics is due to insufficient reflective thinking. On the contrary, *the assumption of the immanence of Absolute Mind in that world of Nature to which both the human body and the human soul belong, is the only postulate which will make valid the whole realm of psycho-physical science.*

First, however, it will be of advantage to illustrate what has just been said concerning the monistic doctrine of the relations of man's body and mind by brief reference to the case of a modern writer. Here again Professor Höffding is selected, because he is one of the most fair, intelligent, and pleasing of modern writers on this metaphysical problem from the point of view of a scientific psychology. In the earlier part of his chapter on "Mind and Body"¹ Höffding discusses the rival theories of Dualism, Materialism, and Spiritualism. The first of the three he dismisses because of its "inconsequence" (chiefly, in respect of the way it deals with the doctrine of the "persistence of energy") and "vagueness." Materialism is then convicted of offending "against the conceptions derived from experience itself." Spiritualism, as a speculative doctrine holding that "the body is only a form or a product of one or several mental beings" is thought to prejudice too much "the leading conceptions of experiential science." A curious confusion of thought pervades the three pages devoted to the discussion of this form of monistic spiritualism, — as may be seen from the fact that Lotze is brought forward and declared to be its "most distinguished representative in modern philosophy;" whereas Lotze's position is that of dualism in regard to the relations of body and mind in man. "The structure of the body," says he,² "is gradually put together from scattered constituents of the outer world, and involved in perpetual flux it is continually giving back parts whence they came.

¹ Outlines of Psychology, Chap. ii.

² Microcosmus, vol. i. book iii. chap. iv. at its close.

With what, then, could the soul form a unity? If it is alternately blended with the entering supply of the body and divided from the decaying remnant, in what else can that unity consist than in reciprocal actions that unroll themselves and then come to an end, according as the course of Nature in one case adds new elements to those at work, in another forces others out of their relations? . . . Its inner life can never become ours; and when the union of different beings on which our living form depends falls to pieces, while we shall all have gone through something together, it will be as beings originally different that after a passing contact again separate." The reason for Höfding's mistake as to Lotze's position is not obscure; he finds Lotze expressing doubt¹ as to whether the physical principle of the persistence of energy is in any way, even if its widest possible application be admitted, incompatible with the real interaction of body and mind.

But when the three rival theories are supposed to have been effectually disposed of, Höfding introduces the theory of monism in the following words: "Only the fourth possibility, then, seems to be left. If it is contrary to the doctrine of the persistence of physical energy to suppose a transition from the one province to the other, and if, nevertheless, the two provinces exist in our experience as distinct, then the two sets of phenomena must be unfolded simultaneously, each according to its laws; so that for every phenomenon in the world of consciousness there is a corresponding phenomenon in the world of matter, and conversely (so far as there is reason to suppose that conscious life is correlated with material phenomena). The parallels already drawn point directly to such a relation; it would be an amazing accident, if, while the characteristic marks repeated themselves in this way, there were not at the foundation an inner connection. Both the *parallelism* and the

¹ In his "Allgemeine Physiologie" and his larger work on "Metaphysics."

proportionality between the activity of consciousness and cerebral activity point to an *identity* at bottom. The difference which remains in spite of the points of agreement compels us to suppose that one and the same principle has found its expression in a double form. We have no right to take mind and body for two beings or substances in reciprocal interaction. We are, on the contrary, impelled to conceive the *material interaction* between the elements composing the brain and nervous system as *an outer form of the inner ideal unity of consciousness.*"

In so far as these words of Höffding contain any valid appeal to facts and to intelligible reasoning, we shall consider them, or their equivalents, later on. Let it only be noticed at present, however, that Monism is here introduced as the sole remaining possibility after the other three theories have been discarded; but, further, that the light which this theory is supposed to shed upon the facts of "parallelism" and "proportionality" affords us no means of understanding what is meant by the "identity" derived from them. For at this point, as usual, this form of monism becomes a dogmatic agnosticism. Hence Höffding goes on to declare: "Concerning the inner relation of matter and mind we teach nothing; we suppose only that *one* being works both." [This declaration is not simply meant to affirm that psychology and its direct metaphysical outcome "teach nothing," — as the following sentences plainly show.]

"But *what kind* of being is this? And why has it a *double* form of manifestation? Why does not *one* form suffice?" [As though one could here talk of "manifestation," in any conceivable meaning of the word, without implying some *thing* manifested to some *mind*, — that is, two forms of being, and not one all-sufficing form.] In answer to such inquiries, Höffding goes on to say: "These are questions which lie beyond the realm of our knowledge." And then immediately it is added, as though some other theory than

the monistic, surely, set the limit to our knowledge on this subject: "Mind and matter appear to us an irreducible duality, just as subject and object." Already, however, the author would appear to have wandered far beyond his primary problem, which was to express the general relations in reality between mind and body; for "mind and matter," or the "mental and the material worlds," have now taken the place of the more limited domain of discussion suggested by the former terms. And so we read: "The *identity hypothesis* regards these worlds as two manifestations of one and the same being, both given in experience;" or again: "The hypothesis pronounces only that the same power which lives, expands, and takes form in the outer world of the material, also discloses itself in its inner world as thinking, feeling, and willing."

Now, it is not intended to charge every representation of the monistic doctrine as to the relations of body and mind with being guilty of such "inconsequence and vagueness" as this discussion of Professor Höffding's certainly displays. Yet it is not unfair to use his discussion as an illustration of what this doctrine is ordinarily found capable of doing for the rational explanation of the phenomena; and the sentences quoted above really give the principal points which must be considered for its thorough comprehension and criticism.

Let it be noted, then, that the entire argument consists of two parts, the first of which may be accepted and the second rejected; or both may be accepted or rejected together. The first part is an alleged scientific generalization, based upon facts of experience; the second part is an inference, or series of inferences, having a metaphysical import and presenting a claim to follow logically from the scientific generalization. We deny both the scientific generalization and the philosophical inference; both the "*parallelism*" and the "*proportionality*" between the activity of consciousness and

cerebral activity, as Höffding understands them, and also his logical conclusion as to "an *identity* at bottom."

The metaphysics of Monism builds upon the declaration that the bodily phenomena and the phenomena of consciousness, or (to use the phrase of the author just quoted) "the activity of consciousness and cerebral activity," may be — nay, *must* be — conceived of as two perfectly parallel and proportional series of phenomena. Hence one series may be spoken of as the "outer form" of that "ideal unity" which the other is. To refer again to M. Flournoy's compact statement of what he calls the principle of "psycho-physical parallelism:" "Every psychical phenomenon has a determinate physical concomitant."

Now, we will not be so cruel as to force the monist to prove that his law of "parallelism" or "concomitance" is true for the whole world of "mind and matter;" or, rather, for the two worlds, "the outer world of the material" and the "inner world" of thought, feeling, and willing. For this would lead at once either to the doctrine of Fechner, as maintained in his "Nanna or the Soul-Life of Plants;" or, perhaps, even to the wild speculation of Clifford, who would correlate with every movement of every molecule or atom some item at least of unorganized "soul-stuff;" or else to the easier if less pleasing assumption of a World-Soul, the activity of whose consciousness would have to be strictly correlated with the motions of all so-called material things. In this way one might possibly bring upon the advocates of monism the jeering request of the materialist to point out a cerebrum somewhere that shall be sizable and complex enough to represent the brain of the so-called "World-Soul." Possibly, too, some of them might be converted from their agnosticism to that saner form of monistic theory which finds in a self-conscious and rational Mind, not the psychical correlate or concomitant, but the real and ultimate Ground of the entire material world.

Since it is the purpose of this treatise to carry everything regarding the nature of the human mind and its relations to the bodily organism back to the true court of appeal, — to the facts and principles established by a scientific psychology, — this law of alleged psycho-physical parallelism will now be examined in the light of known facts. That it is not itself immediately known as a fact, or even warranted by immediate and indisputable inference from the facts has already been shown to be true. “It is only” — it was then said (see pp. 243 f.) — “by a complicated and even doubtful network of inferences that we can reach the knowledge (?), or even the conception or suspicion, that there is a strict concomitant correlation of brain-states and states of consciousness.” Undoubtedly many facts suggest, and even prove, *some sort* of correlation between the activities of consciousness and the cerebral activities. But is this correlation to be spoken of as a strict and invariable “psycho-physical parallelism;” is it even significant of “parallelism” and “proportionality” between body and mind, in the stricter sense of these words? For it should not be forgotten that Dualism, too, insists upon a correlation between bodily and mental phenomena. Indeed, it is this general fact for which it claims to give the best speculative account.

It is not always easy to discover precisely what Monism means by a “parallelism” between the activities of consciousness and the cerebral activities. All men know clearly enough what parallelism in space is; but of course there can be no talk of space relations of the parallel order between conscious states and brain-states. Is it then to be supposed that the parallelism or concomitance, is one of the strictest order in time? It would then be necessary to hold that at every unit of time x there is happening in the cerebral centres some chemico-physical change (cp into $c'p'$, etc.), to which there strictly corresponds, as happening in consciousness at the same unit of time, some change of

psychical states (ps into $p's'$). Now, there are several apparently insuperable objections of a scientific order to this view. For, in the first place, there is good reason to suppose that the molecular changes in the cerebral substance have that continuity in time which distinguishes all physical changes of this sort. They fall, that is to say, under the laws of molecular motion as known — but only in an imperfect and conjectural way — to the chemico-physical science of living organisms. The cerebral centres may be said to be always working, though with varying degrees of intensity. But the flow of conscious states is apparently not of the same order. There is indeed a so-called “stream of consciousness;” and this stream does not consist of a mere succession of disconnected individual states, some of which are representative of past states. Under all ordinary circumstances, at least, each so-called state contains elements that are, as it were, *residua* of the preceding states, as well as other elements anticipatory of, and sure to pass over into, the succeeding states.¹

The analogy, however, which the word “motion” suggests when applied to both terms in this alleged psycho-physical “parallelism” is by no means complete. And much of the argument of Monism for a complete parallelism is based upon misleading figures of speech concealed by the imperfect analogy. What is meant by molecular motions in the cerebral hemispheres; what by the spreading, or movement, of neural processes from cerebral centre to cerebral centre along the connecting association-tracts; what by succession of local nerve-commotions or sequences of transmitted nerve-commotions from centre to centre in the brain, — all this may be imagined, or at least conjectured. What is meant by succession of conscious-states (the only form of movement which the so-called stream of consciousness can have) is known by direct experience. But some of the

¹ Compare “Psychology, Descriptive and Explanatory,” pp. 37 f.

important characteristics of the two kinds of movement are so totally unlike, even as respects their common category of time, — and as to space, it is absurd even to speak, — that the terms parallelism and concomitance, in their stricter meaning, seem inappropriate. The whole mass of the brain, and indeed of the entire nervous mechanism, is ceaselessly in motion, both in space and in time. The sequence in movement of conscious states is often abrupt, discontinuous; and it is always determined by purely psychical processes, which are inseparable aspects or factors of the states, — such as selective attention, discriminating consciousness, and ideas of ends to be gained by the retention and determination of some rather than other of the states in the mental train.

Yet more clear does the inappropriateness of this use of the words parallelism and concomitance appear, when it is considered that, so far as is known, one of the two series of terms not infrequently drops entirely out, — and that for considerable periods of time. Moreover, scarcely any general principle of physiological psychology and psycho-physics is any more certain than this, — the nerve-processes *must attain a given degree of intensity* in order that correlated conscious states may result at all. Still more puzzling for the theory of strict concomitance is the undoubted fact that the necessary degree of intensity in the physical series apparently varies with the same individual, and in dependence upon psychical as well as physical pre-conditions. In sensation and perception, imagination and thinking, the definite necessary cerebral processes must attain a certain amount of vigor and insistence, as it were, or no correlated psychosis emerges in consciousness. In deep sleep — if the old-fashioned *a priori* and metaphysical view be discarded — it would seem that there is sometimes a complete cessation of all conscious states. Blessed are those that can lie down and slumber for hours, and then

wake as though their souls had meanwhile ceased to exist! But if, for the sake of running along *parallel* to the chemico-physical series of events, the soul thinks it necessary to keep up at least some kind of antic and grotesque performances in dreams while the brain is engaged in repairing its structure, what shall be said of the theory of concomitance in cases of accident to the skull? When the patient, just trepanned, resumes the psychical series at the place where it was obviously broken off some hours before, must it be held that some other disparate and unremembered psychical series has been running parallel with the work of the oppressed but not destroyed cerebral substance?

It was perhaps the obscure feeling of these difficulties in the way of the theory of strict parallelism or concomitance, which led Professor Höffding to qualify his statement by the words enclosed in the parentheses (see p. 320). "The two sets of phenomena must be unfolded simultaneously, each according to its laws; so that for every phenomenon in the world of consciousness there is a corresponding phenomenon in the world of matter, and conversely (so far as there is reason to suppose that conscious life is correlated with material phenomena)." But who does not see that here are two contradictory statements included in one sentence? For the two sets of phenomena cannot unqualifiedly be said to be unfolded "simultaneously," and at the same time the proposition that for every phenomenon in the world of matter there is a corresponding phenomenon in the world of consciousness be qualified according to the phrase in the parenthesis. Or does Höffding mean to imply that a "corresponding phenomenon" in the consciousness of the Absolute, or perhaps in some consciousness of lower ganglia and spinal cord that is not ours, is to be assumed as parallel with those cerebral phenomena that lack corresponding states in that stream of consciousness we call our own?

Now, both Materialism and monistic Spiritualism have

ways of explaining such facts as the foregoing, that are vastly superior to anything which this form of Monism can propose. Indeed, it is just these phenomena on which the materialistic hypothesis most relies. For it points to them as proof that the phenomena of consciousness are mere "epiphenomena;" since these are only phenomena of the brain, whenever (and here various analogies in the behavior of other material substances might readily be suggested) its chemico-physical activities reach only a given low degree of intensity. Spiritualism, too, has its own appropriate way of accounting for this class of facts. Believing, as it does, in the existence of a mind which as an entity is capable of producing both kinds of phenomena, it can freely resort, for purposes of explanation, to all manner of unconscious and yet truly mental phenomena. Spiritualism can consistently speak of "subliminal" and "sub-conscious" modifications and states, to be attributed to the same mind that is conscious, whenever it has temporarily laid aside its function of being conscious.

But how shall the metaphysical tenet of Monism account for such strange interruptions in the law of parallelism, after it has established itself on the assumption of a scientifically proved complete parallelism? Let us be permitted to suggest for its use something like the following mythological language. The one being, which *is* neither body nor mind as we know them, but is of a totally unknown character, nevertheless *feels* somewhat particular in its choice of occasions on which to manifest both of its aspects, or faces, in a strictly concomitant way. Sometimes, indeed, it prefers to show only one of the two, — namely, those cerebral processes of a low degree of intensity that have for their end, chiefly, the repair of the cerebral substance. But whenever it decides to manifest itself in the physical "set of phenomena," with a greater degree of intensity (albeit in a somewhat peculiar way), then it also decides concomitantly to manifest

itself in the other and psychical "set of phenomena," — to become conscious, as it were.

Several puzzling, not to say irreverent, questions might pertinently be asked about this unknown being which the monistic theory assumes. For example, how does it know *when* the cerebral manifestation has attained a sufficient intensity and correct character to warrant, or make necessary, the corresponding manifestation in consciousness? Why does it leave it to the manifestation called "conscious mind" to say so much, as it certainly thinks itself to say, concerning what the precise *form* of manifestation shall be? And why should the manifestation called mind go on, with so much immodesty, not to say greed, to assume for itself a real and controlling existence as mind? Why should it never be willing, or even able, to recognize itself as merely a "manifestation," or "aspect," or "face," of that one reality which the monistic metaphysics asserts to be its ground? These questions would surely seem unanswerable, at least until it is suggested that this unitary being may itself be a mind-being. But this answer involves the surrender of the unintelligible hypothesis of a strict temporal concomitance in the two sets of phenomena, and also of the metaphysical conclusion as to the unknowable character of this common ground.

Perhaps, however, the word parallelism must be interpreted as meaning an absolutely complete qualitative correspondence between conscious states on the one side and brain-states on the other side. In this case the term "proportionality" might be accepted as somewhat better defining the real meaning. But in the passage already quoted (pp. 320 f.) it seems certain that the author intends something different by the two words; for he declares, "Both the *parallelism* and the *proportionality* between the activity of consciousness and cerebral activity point to an *identity* at bottom." Professor Höffding seems, therefore, to maintain

that not only do the two series of phenomena run on side by side, — except in the frequently recurring cases where one of the two drops for a time entirely out of existence, — but also that they vary perpetually in such a way as to make each individual, or sequence of individuals, belonging to the one series have its exactly corresponding individual, and sequence of individuals (“proportionality”), belonging to the other series. That is to say, for every brain-state, $B — B^n$, there is a strictly correspondent conscious state, or mind-state, $M — M^n$. If, therefore, we had attained to a completed psycho-physical science, given any one of the infinite number of possible intervening brain-states — say B^d or B^g — and to find the exactly corresponding mind-state, M^d or M^g would be a problem which could have only one answer. Now, since both brain and mind are, although in ways quite peculiar to themselves, both capable of development, the entire life’s history of each would consist of two series of qualitatively correspondent phenomena.

Such a theory as this is exceedingly captivating; it seems to have all the charm of extreme simplicity coupled with the highest degree of value as a scientific explanation. Let it not be forgotten, however, that it is a theory; and — it may be added without fear of successful contradiction — the theory is based upon an extremely meagre amount of indisputable facts. It is only the science of cerebral physiology, when investigated by itself in ways appropriate to a chemico-physical science of the most highly complicated order, and without any influence from theories in either psychology or metaphysics, which can impart the knowledge, or even reasonably conjecture, precisely what the brain-states are. But as yet even general nerve-physiology has had almost no success in solving, in a truly scientific fashion (that is, as a problem making an appeal to recognized principles in chemistry and molecular physics), the behavior of a single nerve under electrical stimulation. Is it strange, then, that the

most learned and yet candid students of cerebral physiology declare that there exists no information about brain-states that at all approaches the stage when it can be called scientific knowledge?

About conscious states a great deal is both popularly and scientifically known, and some of this knowledge is of the most indubitable order. We know, for example, what it is to have the pain of toothache, or to grieve over the loss of a friend, or to aspire to do our duties better; or, perhaps, to lift up the heart in love to what seems to us holy and divine. But even what is the correlated brain-state, as accurately described in terms of chemistry and molecular physics, which answers to the bodily pain cannot be told with any degree of confidence. And as to the peculiarities of those brain states that are strictly "proportional" to our spiritual grief, our aspirations, and our love, conjecture can scarcely reach far enough to tell what such an inquiry is to be understood to mean. At any rate, the student of nerve-physiology who should hereupon announce as a scientific discovery the chemico-physical formulas of such alleged qualitative parallelism or proportionality as the monistic theory assumes, might reasonably be suspected of having become the victim of extreme paranoia.

All admit the incomparability of the two series of phenomena, the cerebral and the mental. Each of the four speculative theories that attempt to account for the relations of the two admits also some kind of correlation, or relation determining in some sort the character of the two series. The brain-states, while this organ has physiological life, never cease to be evolved. The conscious states rise and fall, vary in intensity and complexity, acquire marvellous new characteristics of a highly ideal and abstract kind; anon they cease altogether, or drivel and sputter for hours at a time, only to recur with heightened power, complexity, and ideality. Undoubtedly, the two series bear a close —

even though it may often be an indirect — relation to each other. But it is a wide jump, not to say a long flight, from this narrow land of opinion and conjecture to the proud heights of the principle of strict psycho-physical parallelism. And we decidedly object to binding the partially explored continent of psychology to the unknown and waste ocean of cerebral physiology as though they were but two equal and perfectly symmetrical halves of one sphere.

Moreover, more careful analytic thinking seems to show that any interpretation which makes the "parallelism" or "proportionality" of brain and mind one of quality, like that which tries to express the principle in terms of space or of time, is largely meaningless. Here the common fallacy of most arguments is not difficult to realize, although it has scarcely ever been pointed out clearly. It is assumed that if conscious states may be known as variable in intensity, quality, and time-rate, and brain-states may be conjectured to be variable under the same categories, then, by considering the consciousness which goes with all the former as a sort of mysterious surplusage, so to speak (which it is, of course, impossible to explain), the psycho-physical principle may be announced as proved beyond doubt. But there is no consciousness in general; there is no simple consciousness that may be regarded as a sort of universal "mind-stuff," to be differentiated according to the varieties of the brain-states with which it is correlated. There are only the actual concrete mental states; and consciousness is but an abstraction, dependent for its origin on our experience with these states. Nor are the states of consciousness ever simple, as they are known in self-consciousness. On the contrary, they always are more or less complex; they have many factors, — if by "factors" is meant partial psychical processes. Some of these so-called factors, or aspects, of all the conscious states — and these such as are necessary to there being any conscious states known to the Self at all —

not only have no known corresponding cerebral activities, but it is even impossible to conjecture what could be meant by corresponding cerebral activities for certain classes of mental performances. That is to say, they are uniquely *mental* and *spiritual* activities; and they have no common categories, even of an analogous sort, with any of the cerebral activities. It is this indisputable and most astounding fact which influences at least one of the two "savants" to whom M. Flournoy refers (see pp. 29 f.), to deny the principle of psychophysical parallelism in the way in which monism states it. This general denial may now be illustrated by a few of the many appropriate particulars.

The cerebral activities, if it could ever be known precisely what they are, would doubtless all be found statable in terms of motion. This is all that the powers of so-called matter enable it to do, whether it be considered as aggregated into masses, or as acting in the form of molecules, or as atomic action within the molecules. The material world, indeed, never ceases to move; but then movement exhausts, so to speak, its capacity. Material changes are all, in the last analysis, to be described as changes of relative positions in space. This statement is as true of the brain, when considered as capable of being made the subject of chemico-physical science, as it is of any other portion of matter. Ceaseless molecular and atomic movements within the mass, nerve-commotions, and changes under the influence of so-called electrical, chemical, and thermic conditions, constitute the series of cerebral phenomena with which the activities of consciousness are supposed, by monism, to run qualitatively parallel or proportional. That is to say, the physical "set of phenomena" is all of one and essentially the same fundamental order.

When, however, analytic attention is turned upon the other set of phenomena, — upon the activities of consciousness, — the case with them is found to be by no means the

same. The developed psychical phenomena are always, on the contrary, found to be of three fundamentally different orders, although co-existent with varying degrees of intensity and complexity in the unity of consciousness. For the one fact to which the behavior of the Self testifies is a three-fold fact; namely, not only do I sense, perceive, imagine, remember, think (all of which may be considered as belonging to the main branch of intellective or cognitive activities), but also I feel, and I strive, act, or will. Knowing something, feeling somehow, and doing somewhat, all belong at the same time to all full-orbed conscious states; and yet all such states may be considered as unities abstractly but not really separable by selective attention within the stream of consciousness; and they must all be referred to one and the same Ego as their subject, or ground. Now, to speak of this three-sided and yet uniquely unitary series of mental phenomena as qualitatively paralleled by, or proportional to, the fundamentally different series of brain-states which are all of essentially the same order, is to make an unwarrantable and even meaningless use of terms.

Moreover, the variations in relative intensity and complexity of these psychical functions — in the amount of the total consciousness which they respectively absorb, so to speak — do not appear to be related to the cerebral processes in such a way as to favor the conception of parallelism or proportionality. It is true that no definite scientific knowledge exists as to what are the cerebral conditions or concomitants of the three different main orders of mental phenomena. Physiological psychology has almost nothing that can be called scientific to say in answer to the question: What aspects, or characteristics, of the cerebral nerve-commotions are representative of those aspects which on the side of consciousness we call Intellect; what, of Feeling; and what, of Will? In the case of bodily or sensuous feelings, with their strong tone of pleasure or pain

however, it seems to be variations in the intensity of nervous processes which psycho-physical science has chiefly to take into the account. When the "dynamo-genetic" value of the stimulations increases in a certain way, and does not become too intense, the corresponding conscious states develop an increase of the intellective, affective, and conative activities. That is to say, the whole life of the mind, in all of its three fundamental forms of functioning, is expanded in some sort of correlation with increased intensity in the cerebral processes. But here the very word "expansion" indicates a variety of changes in the states of consciousness, none of which precisely correspond to extensive or intensive magnitudes of a physical sort, and some of which seem to bear no analogy or likeness whatever to such magnitudes.

The important point, furthermore, is established by experience, that, as the cerebral activities increase in intensity beyond a certain degree, the conscious life becomes more and more absorbed in feeling of a painful kind. Indeed, by exceedingly great and sudden increase in the intensity of the brain-processes, the intellect and will may temporarily be almost or quite overwhelmed with huge waves of painful feeling. Now, here is certainly a very odd sort of complicated relation to be expressed by the simple, naïve, and unsuggestive use of words like parallelism and proportionality. How complicated the relation is might be illustrated by hosts of psycho-physical facts, if such illustration were demanded. And what is true of the affective aspect of conscious states as related to variations in brain-states is also true of the intellective and conative aspects. But the difficulties of the general problem, as brought before the principle of "psycho-physical parallelism," are greatly increased on finding that each of the three so-called faculties seems to demand a different set of formulas to express the varied relations in which it stands to the chemico-physical performances of the brain. And not only so, but

the modern theory (now, in its main outlines, established on a firm basis of observation and experiment) of the "localization of cerebral function" introduces a great variety of other complications.

The facts, and the immediate legitimate inferences from the facts, then, warrant some such statements as the following: All variations in the chemico-physical processes of the brain are substantially of one order; they are atomic and molecular movements, with differing intensities and extending over various portions of the cerebral areas. With them are correlated variations in the conscious states of three fundamentally different and irreducible orders, neither of which is wholly analogous (not to say like) to the varying chemico-physical processes. Each of the psychical orders, so far as it can be spoken of as proportional at all to the cerebral processes, follows a great variety of rules, most of which are wholly unknown; and the varying proportions of these psychical activities, as they enter into each complete conscious state, are very different for the different conscious states.

Suppose, however, that the condition of our scientific knowledge be illustrated concretely. A certain human body — that of my enemy — forms an image on the retinas of my eyes. On the physical side, diffusive nerve-commotions in the so-called visual centres of the brain, of a low degree of intensity, result. On the side of consciousness, *I perceive* the external object. Similar nerve-commotions then extend over various association-tracts; and other centres, possibly somewhat distant, become involved. I remember that this is my enemy, and that he has done me such a wrong. On the physical side, an acoustic wave, of a low degree of intensity, now effects the excitement of certain processes in the auditory centres of the cerebrum. On the psychical side, I hear a whispered insult from my enemy. And now, at once, the soul leaps into a markedly different characteristic

state of conscious life; I become exceedingly angry; but thoughts of duty and of self-respect immediately arise, and I decide to put down the anger (or, if not, I let it rage, and fall upon the man, or rush off to buy a pistol). Difficult as it is to suppose that the sudden and intense emotion is preceded, or kept pace with by the intensity and extensiveness of the cerebral commotions, instead of being itself the excitant of these commotions which follow as its result, this inquiry is not to the point in our present contention. For this contention is to the effect that the principle of psycho-physical parallelism proves too meagre and unintelligible in the account which it gives of such manifold experiences. Where it is intelligible, it is painfully meagre; and where it attempts to remedy this meagreness by becoming full and definite, it is utterly unintelligible.

In brief, such words as "parallelism," "concomitance," "proportionality," and the like are all taken from relatively simple relations between beings belonging to the same kind. They are, therefore, not adapted to express the infinite complexity of relations which the scientific study of psychophysics and physiological psychology reveals. And if one stretches and strains their obvious meaning, in the effort to make them cover this infinitude of relations, then one begins to talk in figures of speech for whose interpretation an appeal is made to a crude psychology on the one side, and to a mythological physiology on the other; or else — as quite too frequently happens — one begins to talk utter nonsense.

And now were one disposed to maintain the sceptical attitude toward Monism, — whether one be, in one's own right, an Agnostic, a Materialist, a Spiritualist, or a Dualist, — one might mock at this strange kind of a god, whose temple is erected upon the parallel walls of the psycho-physical principle. How does this unitary being find its way safely through all the complicated performances which its two sets of proportional manifestations perpetually demand of it?

We have already noticed (p. 329) the difficulty which this being must have in knowing the right time at which to wake up the suspended psychical series, and begin to manifest itself as a conscious mind, parallel with the continuous physical series. But this difficulty is slight indeed compared with that which is now found to be involved in its daily task. Why, in the psychical series, does it habitually select a three-fold form of manifestation and yet cling to the one-fold form of manifestation in the chemico-physical series? Indeed, if it receives from the laws of Nature at large the terms on which it must manifest itself in the physical series, — since body and brain are, as belonging to the chemico-physical order, parts of Nature, — why should it manifest itself as mind in a three-fold way at all? Does it receive any of the conditions of the psychical form of its manifestation from the consciousness of the particular mind that it manifests; or does it, perhaps, receive them all from the Absolute Mind, which would surely know how the One Unknowable Being ought to behave as a mind, if it were going to manifest itself in this way at all? And, once more, how does this unitary being know the right way perpetually to keep up such infinitely varied forms of the psychical manifestations, in an *appropriate* proportionality to the variations in intensity and locality of the physical manifestations? To such questions as these, Materialism, Spiritualism, and Dualism all have at least some attempt at an explanation to propose. But Monism can respond only with the agnostic negations and warnings. No wonder that Monism is forced at this point into a complete agnosticism, — into a confession of ignorance so complete as to render unintelligible the very alleged scientific principle upon which it is founded.

That the principle of psycho-physical parallelism, or proportionality, is not only from the first inadequate but also becomes unintelligible in its attempt to summarize the

facts of experience as to the relations of body and mind, is further evident as soon as we examine its application to any of the so-called higher orders of mental phenomena. For these phenomena do not fall under common categories with the chemico-physical processes of the brain; they cannot therefore be called parallel or proportional to these processes in a qualitative way. In a figurative way it may be said, indeed, that as to intensity, quality, complexity, time-sequence and duration certain elements of all conscious states are parallel or proportional, to the brain-states. But even here, to speak with scientific exactness, it is necessary to remember that all comparisons are apt to end in mere figures of speech. As to what really occurs, we must not be misled by our words. For example, the interpretation of Weber's law depends upon how far it is admitted that variations in intensity of our sense-experience exist as distinguished from what are really changes in quality or tone. Moreover, even in this realm, as the advancing science of psycho-physics makes clearer every year, the quantitative relations between the two sets of phenomena are exceedingly complicated; and — what is yet more to the point — some of these relations are directly dependent upon psychical factors for which it is as yet, and probably always will be, utterly impossible to mention (much less reduce to scientific terms) any cerebral correlate. Here might be instanced the dependence of the intensity of sensations, or of the conscious order of sensations, upon felt interest, upon selective attention, and upon practical ends which are conceived and chosen by the mind, and then projected into an ideal future.

And when the lower and narrow realm of categories that may in some sort be made common to activities of consciousness and of the cerebral substance is left behind, we at once enter a region of the blackest night, so far as any light or guidance from the principle of psycho-physical paral-

lelism is concerned. Here Professor Höffding, and all adherents to similar doctrine, might well be asked: In what definite chemico-physical process of the brain-substance does the one Being manifest itself, that is parallel or proportional to the monist's own conscious metaphysical faith in the "reality" of such a being, or indeed in any real being at all? And what molecular or atomic changes are the strict concomitant or proportional of the "Identity" which the monistic theory predicates of such being? But let the illustration of our objections begin at a somewhat more obvious level.

It is a plain psychological truth that the most primary processes of a really intellectual life are so unique in nature that, considered as *intellectual* activities, they have no conceivable, not to say actually known, qualitatively parallel or proportional cerebral processes. And this truth applies to all the phenomena of human consciousness, in so far as such phenomena become objects of scientific observation. For no mental phenomenon can be an object of knowledge for him to whose mental life it belongs without being known as such and no other phenomenon,—that is, without being discriminated, assimilated, and related to other states in the total stream of consciousness. Every mind, when thus acting as discriminator, comparer, and relating agent, with reference to its own content, is certainly not to be thought of as existing and acting apart from the very life which consists in the content discriminated, compared, and related. Intellect does not literally sit aloft and "preside over" the sensation-content or the ideas, classifying them—as the skilful mail-agent pitches the letters that come under his eye into the proper boxes or bags. But immanent intellect is a necessary part, is the essential active aspect, or rather essential spiritual activity itself of every state of consciousness, if such state is to be made an object of knowledge at all. And this spiritual activity, which is the fundamental

thing in all knowledge, involves in its higher manifestations selective attention, the feeling of self-activity (of being mentally alive and doing, if you will), recognitive memory, and the conscious adaptation of the mechanism of ideas and of the ideo-motor bodily apparatus to practical ends.

What is meant by calling one chemico-physical process in the cerebral substances "like" or "unlike" another, whether partially or totally, all men can understand, although in precisely what features this likeness consists, no man may be able satisfactorily to say. All men can also understand what is meant by the likeness or unlikeness of psychoses as known to the subject of them. For, indeed, it is in this immediate recognition of like and unlike mental states that all knowledge begins and all argument ends. Considered merely as respects their sensation- or ideation-content, one may perhaps be allowed to speak of like psychoses being parallel or proportional to like cerebral processes. But as to what is meant by a cerebral process that is parallel or proportional to the intellectual activity of relating, as such, to the self-conscious work of discriminating, — this is something to which we find it quite impossible to attach any clear conception.

To avoid misunderstandings, — so frequent and gross are they at just this point, — let the problem proposed to the advocates of exact psycho-physical parallelism be kept steadily in mind. The complete inadequacy of the psychological theory which would resolve all mental phenomena into sensations and revived weaker images of past sensations associated under certain alleged laws of similarity, contrast, etc., may be said to be both demonstrated and confessed. The recent attempt of Ziehen and others to revive this twice-dead theory of the mind's nature and activities by injecting into its veins, according to the methods of modern medical science, a few drops of red blood from the vigorous infant known as physiological psychology, will succeed no better

than the earlier unscientific attempts. Indeed, the modern form of the theory must inevitably fare worse; for it is far more remote from any indubitable and well-known facts than was the English Sensationalism and Associationalism of a generation ago. One may approve or disapprove of the term "apperception;" one may adopt or reject any particular view of "apperception;" but one should not be deceived into taking mere words for realities, — especially not, when these words stand for myths instead of known facts and laws.

What must be accounted for by every psychological theory is not simply the fact that mental phenomena occur in series having variable qualities, quantities, time-rate, and time-order, which may be conceived of as paralleled by cerebral phenomena with proportionately varying qualities, quantities, time-rate, and time-order. *What must be accounted for is the fact that I know this thing, or state, of my own to be like or unlike some other thing, or other state of my own.* Even the simplest *consciousness of similarity* is a far different fact from the mere *existence of similar processes*, physical or psychical, *plus* consciousness, — thrown in, as it were, in the lump. And the developed complex knowledge of things like and unlike is, of course, a yet more complicated affair. Let, then, the chemico-physical processes, like and unlike, run on forever; let the admission be made that consciousness is a general phenomenon incomparable wholly to these processes; let the further discovery be made that different states of consciousness are (when regarded simply content-wise and with respect to quality, quantity, and time-rate of sensations and of revived images of past sensations) proportional in some sort to these processes, — and is then the consciousness of similarity, considered as the unique mental activity that it is, to be spoken of as "proportional" to these processes? On the contrary, no one can form the slightest conception of what such an application of the term proportionality might mean; or of the terms that could be

employed to make intelligible a law of the proportional variation in the two kinds of phenomena, even if some lucky investigator in cerebral physiology should suppose himself to have discovered the exact nature of the requisite cerebral changes.

What has been said of both the primary and the more elaborate processes of intellection holds true of recognitive memory; for this mental achievement involves these intellectual processes, and contains also something unique and belonging to itself. Here again there are certain aspects or factors of the conscious states that may be spoken of as having their correlates in the chemico-physical processes of the brain. The psycho-physics of ideation undoubtedly tends to show that the recurrence of similar associated ideas in consciousness is somehow dependent upon the recurrence of similar neural processes in the same cerebral areas, including their association-tracts. The disposition to remember, to imagine, and to think in certain ways rather than others is somehow dependent upon "dynamical associations" which have been established between different related neural elements, and upon the functions belonging to them. And if one fills up the scant measure of our valid inferences on this subject with a liberal amount of conjecture, one may perhaps render intelligible the meaning of the term "psycho-physical parallelism" as existing between recurrent similar brain-processes in series, and the train of associated images in consciousness, considered merely as such. But this is far indeed from accounting for the whole of recognitive memory. For what I remember recognitively I know as in the *past of time*, and as belonging to *my* past, to the past of the *same Self* that I now am. This memory, therefore, involves not only ideation and comparing activity, but Time-consciousness, consciousness of Self, and consciousness of Self-Identity. Here again — to use the language employed in the confessional of the rankest materialism even — we

have not as yet the "rudimentary organ" which would enable us to conceive of chemico-physical processes that shall vary proportionately, or in a form of qualitative parallelism, with these forms of consciousness. Here again, then, we are face to face with unique spiritual activities that cannot, even figuratively and in an analogical way, be correlated with activities of brain molecules and atoms. Thus does the plain man's memory propose a problem to the advocate of the principle of psycho-physical parallelism which not only cannot be answered, but cannot even be brought into terms of his science at all. For something more than a definite series of ideation-processes, with a vague general addendum of consciousness, is here seeking its proportional, its parallel, chemico-physical processes; special, unique, and incomparable forms of spiritual life are demanding recognition, with problems that have no parallel or proportional in any physical processes.

But *knowledge* — as has been repeatedly urged in this treatise, and shown elsewhere¹ from the standpoint of psychological science — involves all the developed activities belonging to what we call mind. The mystery of knowledge cannot be resolved into the mystery of an unknown being manifesting itself in two parallel and proportional series of utterly incomparable phenomena. To make this denial clear and to enforce it appropriately would require a detailed critical treatment of the theory of knowledge. It must suffice at present to say that the position taken by the advocates of an exact psycho-physical parallelism is incompatible with any true theory of knowledge; and not only so, the position cannot even be stated in terms consistent with the fundamental postulates of knowledge.

In brief, then, the alleged scientific principle of psycho-physical parallelism is far from being the self-evident con-

¹ See "Psychology, Descriptive and Explanatory," *passim*, and especially chap. xxii.

clusion of modern psycho-physical research which it is so often and so rashly assumed to be. Even the simplest relations between the phenomena of the lowest order of consciousness and the concomitant cerebral activities are far too fluctuating, complicated, and changeable to be subsumed under this principle. Of parallelism in space we cannot speak appropriately in this connection. Of parallelism in time there is only an incomplete and broken analogy. And when one tries to think out clearly the conception of a complete qualitative parallelism, one finds the principle soon ending in inadequacy, and finally becoming unintelligible or absurd. *Scores of different complicated formulas appear to be necessary in order even very imperfectly to express the infinitely varied relations* — so delicate, subtle, and changeable in dependence upon conditions perpetually arising in both sets of phenomena — *between the body and the mind.*

Suppose, however, that this alleged scientific law should finally curb its pride and put itself into some such shape as that the eye of understanding could take in its outline, still the metaphysical theory called "Monism" would not follow as a matter of course. It is by no means a self-evident argument, as Professor Höffding seems to assume, from "the parallelism and proportionality of the two sets of phenomena" to "an identity of being at bottom." On the contrary, the more obvious and intelligible inference would seem to lead from the *two sets of admittedly incomparable phenomena*, however parallel they may run and however proportional they may in some respects appear, to *two kinds of entities* as their ground. Or, in case the principle of parcimony is to be conserved at all risks, let us turn either materialists or spiritualists, and make one known kind of being do the work necessary to produce the two sets of phenomena. But this would lead either to Dualism on the one hand, or to Materialism or Spiritualism on the other. And, indeed, Monism is the most wasteful possible form

of a metaphysical theory for the relations between body and mind. Body we know, and mind we know; and if we are compelled to assume any real being to furnish a metaphysical ground for the phenomena, then we can afford one kind of being for each kind of phenomena. But this third unknown and unknowable sort of being, what does *it* here? If the phenomena are not so incomparable that they cannot properly be referred to one reality as its manifestation, then our choice lies between the so-called body and the so-called mind; and thus materialism and spiritualism must fight it out between themselves. Monism has no standing as a third metaphysical theory. But if the incomparable character of the two sets of phenomena forbids either the materialistic or the spiritualistic hypothesis, then the dualistic hypothesis would seem for the time to hold the field. Monism again, however, has then no *raison d'être* as a rival metaphysical theory.

Nor can it be said on valid grounds of general metaphysics that two beings which behave with such nice regard for the principle of proportionality as do the body and the mind *must be* "at bottom" one and the same being; unless we are prepared to admit that all particular beings, by virtue of the general fact of their being connected at all, imply the Unity in Reality of them all. Oxygen atoms, for example, always behave with a strict regard for the principle of proportionality, when they come into chemical relations with hydrogen atoms. But oxygen atoms follow another formula in their behavior under similar chemical relations with nitrogen atoms; and so, still another formula with carbon atoms. Indeed, it is the general principle of proportionality, with varied particular formulas, which characterizes all the atomic relations, and so rules the structure of all things as considered in terms of the atomic theory. And yet chemical science assumes that there are about seventy different kinds of atoms, instead of only one "at bottom"

identical being, in order to account for the world of beings that have atomic structure. Why, then, should not two kinds of beings be able to conduct themselves according to the strictest principle of proportionality, if seventy kinds of beings can accomplish the similar task when set to them? In short, the monistic "must-be" makes no impression as a logical argument upon us at all.

The answer to the foregoing and to all similar inquiries may, indeed, lead us to the hypothesis of one Mind-Being as the Ground alike of all things and of all finite minds. But it certainly does not logically bring us with a flying leap, as it were, to the standing-ground of the monistic theory for the special relations of body and mind. If seventy different kinds of beings can get along so well and build together the unity of a material world, cannot the human mind and the human body get along together equally well without sacrificing either kind of entity?

But the more the argument of Monism emphasizes the incomparability of the two sets of phenomena, as against the theories of Materialism and Spiritualism, the more illogical it makes its own conclusion as against the theory of Dualism. On the other hand, the more it emphasizes the alleged parallelism and proportionality of the two sets of phenomena, the more it prepares the way for either materialism or spiritualism as against both itself and dualism,—while with dualism it is, of course, in most direct and irreconcilable conflict. In general, then, monism has all the difficulties and objections of all the other theories against it; and there is not one of the arguments in favor of each of the other theories that strongly inclines to its side.

Finally, its declaration of the "identity" of matter and mind in a being that is neither matter nor mind lands the monistic theory, not simply in the unknown, as it would have us believe, but in the absurd. It is agreed by all analysts of the fundamental forms of mental life that the so-

called principle of identity¹ marks the extreme limit beyond which our comprehension cannot pass. This principle cannot itself be proved; for all proof begins and ends and becomes valid only as the assumption of this principle is made. Indeed, the very attempt to question this principle, to pass it under critical review, or to explain what it means by resolving it into something more simple and fundamental, is absurd and self-contradictory. In all these respects "the principle of identity" differs totally from the so-called "principle of sufficient reason" (of the nature of which enough for our present purpose has already been said, and with which the principle of identity is sometimes compared).

Without further description and limitation, however, the principle of identity is a purely abstract principle. Even when announced with the barest possible amount of limitation, as in the formulas of formal logic, — $A = A$; and A not = non- A — it is assumed that experience defines the terms to which the principle is concretely applied. Even in affirming that " A is A ," something must be known about *what* particular A stands as subject of the affirmation; and also *what* the A employed as predicate is, — otherwise it cannot be said whether *this* A really *is*, or is *not*, the same as *that* A ; or, in other words, whether the being designated by the letter A really is the self-same being as known in two successive experiences within the constant flow of the stream of consciousness, or whether there really are two very similar beings related under the form of judgment.

Now, it would be a most interesting and — we venture to imagine — a most puzzling inquiry to address to Professor Höffding, and to all advocates of a similar form of Monism: What do you really mean by affirming "identity" of a being which *is not* body nor mind, but *is* the common ground of

¹ Compare what is said in the author's "Introduction to Philosophy," pp. 205 f.

both, and yet is of a nature unknown and unknowable? Surely nothing less than this can be meant: The being in which the ground or real source of the two sets of phenomena is found remains ever one and the self-same with itself, amid all changes in the forms of its two-fold manifestation. But the reply is ready at once: Such a declaration is meaningless with regard to any reality unless it somehow be known, or at least assumed, *what kind* of a reality it is about which one is talking. As to the meaning of the self-sameness and the unity which may be attributed to mind, we have already explained ourselves at length (chapters V. and VI.); and by way of comparison and contrast the meaning which these words must bear, when applied to physical realities, has also been indicated. What it is to be identical, as every self-conscious, remembering, and self-reflective mind knows itself to be, is then perfectly clear. What it is for a physical reality — as, for example, an atom or a mass of matter — to be identical is relatively clear; but only if one may be allowed to interpret back into terms of self-conscious experience words which are always employed in a figurative way when applied to material things. But what it is for a being that is neither mind nor matter, and about which we do not know and cannot know as to what it is, to be identical, — to remain one and the self-same, — no conception whatever can be formed. Indeed, about such a being the monistic theory has absolutely no right to use words like “identity,” “oneness,” and “self-sameness.” “Identical!” With what, indeed, is this *X*, this totally Unknown, this unitary being of the psychological monist, identical? With itself? This must be so, since it is not identical with either matter or mind. But how can a being remain the same with its Self, if such being have no kind of a Self, with which to remain the same? This inquiry forces monism of the type we are criticising to the admission that its *X* stands for no reality which can *be* anything or *do* anything, — not to say,

perform all the wonderful and complicated functions of manifesting itself appropriately in two parallel but incomparable series of phenomena. Its identity-being is a barren, æsthetically and ethically worthless, inefficient and non-existent abstraction; let it be at once tossed over into "the death-kingdom of abstract thought."

The moment, however, the consideration of *kinds* of being is introduced, as it must be in the interests of the reality and applicability of the very word identity itself, the old puzzle over the incomparability of the phenomena recurs; and all the debate as to the true metaphysics of the relations of body and mind must be gone over with again. For human knowledge comprehends only two kinds of beings, — mind, and things; and the metaphysics of psycho-physics must take its choice between the two. That is to say, If this *X* is to be anything more than merely an *X* (a letter that stands for no reality,—and some kind of a real being it must be, in order to be declared one and the same with its Self), then *X* must stand for either mind-being or material being. You cannot identify the two. The formula which experience asserts with the most irresistible conviction, and which is assumed and demanded in all empirical investigation, and in all statement of empirical results, is this: Mind is *not* matter; mind is not identical with body or brain, for body and brain belong to another species of being, — to so-called matter (*A* is *A*; and *B* is *B*; but *A* is *not B*). The incomparability of the phenomena forbids identification of the beings whose the phenomena are. And, indeed, the very meanings of the words "unity" and "self-sameness" are specifically different, when applied to mind and to body or brain.

The monistic theory of the relations in reality of mind and body begins by founding itself upon an inadequate and mistaken empirical generalization, — the so-called principle of psycho-physical parallelism. Upon this insecure foundation it builds up a metaphysics which is as unintelligible and

even absurd as it is unwarranted by its alleged foundation in fact.

We return, then, to the speculative view of Dualism, as this view has already been explained and defended. To summarize the arguments in its behalf, the dualistic theory is the popular and only justifiable metaphysics for the investigator who wishes to confine himself as closely as possible to the scientific study of either mental phenomena or the phenomena of the physical sciences. It is also the only intelligible and defensible conclusion of a critical metaphysics as applied to the study of the real relations of body and mind. Before, however, we indicate again how our investigations into the metaphysics of mind lead out into the general field of philosophy from which they have themselves borrowed so much, and also how they prove the absolute truthfulness of a more intelligible and defensible form of monistic doctrine, we shall briefly examine certain objections which may not seem already to have been sufficiently removed.

The ordinary objections to the dualistic view of the real relations between the body and the mind have reference to certain conceptions of the nature and application of the principle of causation. On this point the opponents of Dualism are wont to criticise its adherents for their view respecting the "interaction" of these two alleged substances; and to this criticism is generally added the impossibility of reconciling the dualistic view with the physical principle of the persistence of energy. To clear up completely this obscurity would require a thorough and comprehensive criticism of the entire principle of causation, and such criticism belongs to another branch of philosophy than that which is now engaging our attention. A few words on this point, in addition to the discussion already given in earlier chapters (see pp. 210 f.), must suffice.

The word "interaction" may be used appropriately enough to describe, under one term, all relations in reality between

the body and the mind, if only clear and consistent conceptions as to the meaning of the word be formed and maintained. Indeed, this is the only single word that appropriately covers in a general way, these relations. What psychological science wishes to know is, of course, the precise character of the indefinitely great number of relations, and the formulas that comprehend and express their different main classes. An intelligent investigator by no means understands by the word interaction some actual influx of physical energy from the brain into the mind; or, conversely, a return of psychical energy from the mind upon the brain. But, then, it is nothing of this sort which intelligent and critical metaphysics intends by admitting any form of interaction, whether such interaction be conceived of as taking place between different masses or molecules of matter, or between different psychoses in the stream of consciousness; or, again, between psychoses as activities of mind, on the one side, and brain-states upon the other side. Crude notions of interaction like this may well be left to those physicists who despise metaphysics, for exclusive use in their own realm.

For those who have the slightest acquaintance with critical metaphysics it scarcely need be said that the whole list of conceptions which understand terms like "transition of energy," and "conservation and correlation of energy," as though energy were an entity separable from concrete active things or active minds, is quite absurd. What is meant by the interaction of any two beings (for example, x and y) is simply this, — the action of x and the action of y are dependently related in such manner that the relation may, conceivably at least, be stated in terms of some law or formula. More concretely, when x behaves in a certain way, then as a matter of fact y behaves, or has just behaved, in a certain way; and conversely. Therefore we say, the reason or explanation of the behavior of both x and y is partially to be found, each one, in the behavior of the other. But such a

reason or explanation is never more than partial. *For partially also, and often chiefly or even almost exclusively, the explanation of the interaction of every two beings is to be found in the so-called "nature" of the beings which interact; that is, the interaction itself is recognized as a mode of behavior which has no further explanation than the self-activity of the beings which interact.*

The mystery of that real relation between different beings which is designated by all terms of interaction is equally fundamental and great, whatever be the kinds of beings between or among which the interaction is conceived as taking place. Only experience can tell us between what kinds of beings interaction at all is possible; only scientific inquiry can set the formulas for stating the terms of such interaction, if it exist at all. Shall one affirm, in lofty *a priori* fashion, that unlike beings cannot interact? But the entire modern chemico-physical theory of the world is built upon the fact that some seventy fundamentally different kinds of beings, by their constant interaction under an infinite variety of circumstances and according to innumerable formulas, do actually constitute the reality of things. Shall this interaction between atoms be conceived of as a kind of physical transition requiring contact of atom with atom, or as involving a continuity in the physical substratum within which it takes place? Then the ever present and utterly mysterious fact of gravitation contradicts the assumption. And by what right does any advocate of the monistic theory of the relations between body and mind dogmatize as to the impossibility of two such unlike beings actually existing together under terms of unique interaction? That *can* be which *is*. That the sun and the earth, and even the remotest fixed stars, without any known medium between them, pay attention to each other in an indefinitely complicated way; that the various atoms which enter into the constitution of the protagonist of the human brain conspire together to produce this

primary substance which (even according to the monistic hypothesis) serves as the manifestation of reality correlated with the phenomena of consciousness, — all this is every whit as mysterious as the fact that body and mind constantly interact in a great variety of ways.

On the other hand, the alleged incompatibility of Dualism with the physical principle of the persistence of energy grows out of the same crude metaphysics, with its misleading figures of speech and its unwarrantable dogmatism. Need this ground be gone over yet again? Let physical science, as it advances, continue to reduce to manageable, approximate mathematical formulas the interactions of masses in a *quantitative* way, when these masses maintain only very simple relations with each other. Let it generalize its triumphs within the sphere of such relations, and make one supreme attempt at a formula common to them all; and then let it call this formula by the title "the conservation and correlation of energy." With respect even to those *qualities* and *qualitative changes* in material things which the different senses take account of, this principle of the conservation and correlation of energy has nothing to say; upon our experience with the physical world, *qualitatively* considered, it has no light whatever to throw. And even within the sphere of relations of quantity, the phenomena of molecular physics, of chemistry, and of living organisms at present far overtax its powers. As has already been said, it can as yet give no adequate explanation of the behavior of the simplest muscle-nerve preparation under the action of the electrical current. How indefinitely far off it is from explaining the quantitative relations of the different elements of the brain-mass, it is scarcely possible to conceive. Would it not be well, then, to wait until its triumphs are more nearly complete in the grosser portions of the physical sphere before we allow it to "pull the pall over the psychic half," — before we venture in its name to con-

tradict the plainest facts of daily mental experience, and the most obvious and direct inferences from those facts?

Still further, suppose that the principle of the persistence of physical energy had been empirically demonstrated as applicable to all quantitative relations among the elements of the brain-mass. One would then no more be warranted than now in conceiving of the relations between this mass and the activities of consciousness in terms of mere quantity; and, of course, even the acknowledged quantitative relations could not properly be conceived of as instances of the transition of something called "energy" between the two. The relations between brain and mind are what they are; it remains for science to find out precisely what they are, and then to frame its formulas as best it may upon the basis of all the facts. It will certainly be a long time before the concrete fulness of actual life, just at the place where it culminates in its highest expressions on both sides, — on the side of physical life in the human brain, on the side of psychical life in human consciousness, — is brought under terms of mathematical formulas. This part of the world, like all the rest of the world, is something far more and other than a system of relations expressible in terms of measurement. And then there will always remain the question as to the origin, meaning, and application of the very word energy. But the mere mention of this question brings us around again to the same old point of starting, — namely, to the very experience which this form of monistic theory, in the interests of the principle of the persistence of energy, undertakes to invalidate or deny.

CHAPTER XI

ORIGIN AND PERMANENCE OF MIND

IT has been our intention thus far to keep metaphysical discussion close to its basis in that empirical science which describes and explains the phenomena of mental life. If at any time the departure from this basis has seemed somewhat too wide for a leap commensurate with the strength of the human mind, or even to amount to a flight in "regions wide" of "thin air," it has still been our wish frequently to descend again in obedience to the call of science, and to survey anew the facts in which the speculative points of starting should always lie. In other words, the constant aim has been to ground a metaphysics of mind in the science of psychology, — borrowing from general metaphysics and from physical and physiological science only such conclusions as might seem necessary to give completeness and consistency to our conclusions. It should be remembered, however, that the naïve and instinctive faiths of all human nature are also facts; and these facts cannot safely be disregarded. It is rather the business of critical metaphysics to consider analytically such faiths, and so far as possible to harmonize them with one another and with the other facts and laws of psychological science. It is by pursuing this course that, as we trust, a valid claim has been established for our metaphysical views.

Certain problems remain, however, which cannot be discussed, or even approached for presentation, in quite the

same way. They are now to be considered, chiefly because of their close connection with the problems which have already been examined. For their solution — so far as solution can be spoken of in such a case — they require large account to be taken of considerations that belong to the philosophy of Nature, to the metaphysics of ethics and of art, and to the philosophy of religion. After being raised and touched upon in this treatise, they may be handed over to these other domains of philosophy, — perhaps to be met and grappled with there, at some future time.

Whence came this being which is called the "Human Mind"? Where does it go, or where and how exist (if at all), when its present relations to the body are terminated by death? Where and what is it, even before these relations are terminated, when all conscious activities, or forms of its manifestation, have temporarily ceased? What is the place which it holds, the particular set of functions which it exercises, in that vast System of Things of which men vaguely form an abstract conception, and to which they give a name, pleasing their fancy, and perhaps exciting awe in themselves and in all beholders, by beginning it with a capital letter? What is the place of man's mind in Nature? These are questions so vast in their import and many-sided with respect to the considerations to which they directly or indirectly lead, that no appeal to psychological science simply will at all satisfy them. Yet they are inquiries as to the origin, nature, destiny, and significance of the mind. They all, therefore, have their roots, as questions merely, in the phenomena of mental life. Were these phenomena not what they undoubtedly are, such questions would never arise. Crows do not sit solitary or meet in companies upon the withered branches of forest-trees to meditate over similar problems raised by the phenomena of animal consciousness. Nor do our most intelligent and beloved comrades, the dogs that walk and hunt with us when living, and sometimes

grieve over our graves when dead, disturb their occupations or interpret their own dreams in a way to signify an interest in problems like these.

To be more precise, questions as to the origin, continuance, and destiny of the human mind, and as to its place and value in a world-system, have a psychological origin. They themselves originate in the nature of the mind which raises such inquiries about itself. The solution which they receive, unless they issue in totally vain speculation, must be, if not given or suggested by psychology, at least shaped in accordance with the facts, laws, and legitimate metaphysical conclusions of this science.

The inquiry after the Origin of Mind is, like all similar inquiries, liable to be quite misunderstood; it may therefore be answered in an unsatisfactory, or even unintelligible and absurd, way through the use of inapplicable analogies or figures of speech. *Whence did I come?* The reflective Ego may certainly attain the development necessary to raise this inquiry intelligently. Whence comes the mind of every man? This is a question with which metaphysics — especially in the crude form in which it is found in theological circles — naturally busies itself. The terms of this question are, of course, derived from human experience with the passage of things in space. Every thing, x , which appears at any particular place, — a , b , or c , — not having previously been noted there, must of course have come from some other place, be it an m or an n or a p . No thing can be newly found at a , b , or c that has not arrived there from some "whence," such as m or n or p . In the popular confidence this is as true of the meteorolite, whose fall no eye has witnessed, as it is of the familiar stone which has marked the boundaries of a field, and has recently been moved some "whither" because the owner's territory has been enlarged.

The plain man, who is unacquainted with the metaphysics of modern physics, does not feel in the same way, however,

about the new tree which he discovers in the spot that he remembers as vacant in his boyhood days. Its appearance in this place is accounted for by his being told that a seed was planted there years ago by the wind or by some human hand. In spite of the attempt in certain quarters to make an *a priori* principle out of the persistence of matter, and in spite of the alleged impossibility of conceiving of an absolute beginning of things, the average mind does not recognize such a principle, or feel such an impossibility. The truth is that this principle is not *a priori* at all; nor is the impossibility absolute. If, then, any x may be conceived of as a growth, albeit a physical growth, it may also be conceived of as being new at a , b , or c without having come thither from some m or n or p .

Strange to tell, however, the popular imagination, although it recognizes the mind as in some sort a development (and so more nearly, in respect of its presence, analogous to the growth of a tree than to the passage in space of a stone), prefers to conceive of it as transported from some other place and made to enter the body, either at birth or at conception, or at some time between the two. The reasons for this preference lie in the very nature of self-consciousness, and of the observed relations of conscious activities to the movements of the body, as necessitating for their genesis and expression certain figurative ways of thinking and certain corresponding figures of speech. That critical metaphysics, however, which lays bare the reality of mind and the nature of its real relations to the body shows the true meaning of these conceptions as well as the absurdity of taking them in a literal way. In terms of space, the only answer to the question, 'Whence comes the mind?' must be, The mind comes from nowhere; for it never was, as mind, in space, is not now in space, and it cannot be conceived of as coming and going in space.

The answer just given must not in itself be understood to

the prejudice of the doctrine of transmigration of souls, or of the immortality of the souls now existing. It only shows what must be held to be the real meaning of these doctrines, in case there is evidence for holding them to be true at all. By "the transmigration of souls," nothing intelligible or defensible can be meant except this: The same soul, x , which at present sustains peculiar relations of interaction to that body which now has its place at a or b or c , in past time sustained similar relations to another body which had its place in some imaginable or wholly conjectural m or n or p . The doctrine of "the immortality of mind," too, can answer the question, Where does the mind go at death? only by saying: The same mind which has had its connected body at the places a and b and c will have "another body" with which it will be somehow connected; and this body will be at the conjectural places m and n and p . But what is properly meant by continuing to be the same soul or mind, with a changed body, has already been made clear in discussing the identity and unity of mind.

Since there is absolutely no proof, or even impressive evidence — as it seems to us — that the present mind of any individual man previously existed as the *same* mind in relations of interaction with *another* body, it must be said that the question as to "whence comes the mind" is meaningless if we attempt to state it in terms of space. No mind "comes from" anywhere. Every mind, on the contrary, begins to assume those indirect and figurative relations which are the only ones it can hold to space, whenever it begins those activities in which its very existence as mind, and as known to itself to exist, are found to consist. Every mind must be conceived of after the analogy rather of a *growth*; but also of *such* a growth as the science of psychology shows that it actually is.

If an inquiry into the origin of the mind of the individual man be pursued in terms not of the geometrical order but of

biological science, the answer is scarcely less satisfactory. Thus the ancient theological debate between the creationist and the traducianist theories of the genesis of mind was carried on by both parties with an almost complete disregard both of psychological science and of critical metaphysics of mind. But the modern student of biology who holds to the so-called evolution of the mind of man from that of the lower animals, is scarcely less figurative and unintelligible than was the old-fashioned advocate of traducianism. One may know at least what is meant by speaking of the derivation of a particular bodily organism, whether that of a man or of the lower animals, from other organisms. For here the word derivation covers certain observable activities of generation, of embryonic growth, of birth, and of subsequent characteristic physical development. One may also know what is meant by the development of the individual mind; although terms derived from biological evolution are far too often employed in psychology in a thoughtless and really impertinent way. No previous mental activity, or conscious state, can really be connected with the following activities and states as their progenitor, so as to explain the genesis of the latter in the same way in which the existence and action of the parents explain the origin of the offspring; or even in the same way as that in which the earlier forms of bodily development explain the origin of the later forms. Nothing really remains of any of the previous conscious states which can enter into the next following states, as the spermatozoon buries itself in the egg, or as the atoms of the single cell persist and unite in the genesis of two cells from one another by bifurcation; or, again, as every tissue of the animal body builds itself up by taking into itself the pabulum brought to it in the arterial blood.

To speak of parents as transmitting their minds to their offspring, in part or in whole, is to use words that have no assignable meaning. That the character of the individual

mind which begins to be and which develops, in the peculiar relations to the transmitted bodily organism which have already been examined in detail, itself differs significantly according to the different mental peculiarities of those in whose act of physical generation this organism begins, science as well as ordinary observation abundantly shows. It is this general fact of experience which gives to the materialistic hypothesis one of its strongest arguments. The reasons for this fact, so far as they can be traced back in the series of known events, are undoubtedly to be found in the physical characteristics imparted by generation to the organism under the biological principles of heredity, variation, etc. That is to say, the real genesis of the individual man, so far as it connects him with the race, pertains to the bodily organism. And since the characteristics of that stream of consciousness which is called the mind are, as a rule, notably similar in the case of offspring and their ancestry, the materialistic hypothesis seems to afford the best solution of all the known facts.

*But difficulties emerge on further reflection which are similar to those that accompany all attempts to state clearly, and to defend with due reference to all the facts, the materialistic metaphysics of mind. For the development of the individual mind by no means appears to be wholly determined by such ancestral conditions as can be carried over in the transmission of physical life. The rather is the life of each mind a unique psychical history in which repeated and self-directed activities of the conscious Ego take an important part. If scientific psychology requires us to recognize the influence of those occult causes which we in our almost complete ignorance cover up with terms like the original "*nature*" of the mind, it also equally requires us to recognize the potent and more obvious conditions which attend the acquiring and improving of "*character*." These latter conditions emphasize rather the independence of its

so-called ancestry which characterizes each individual mind, and, as well, the working of that side of mental life which materialism finds it most difficult to take at all into its account.

It is necessary, therefore, to account for the facts to which the traducian theory of the soul's origin appeals, in somewhat like the following way. Transmission or genesis of mind by the act of physical generation is an impossibility. It is inconceivable what that can be brought into accord with tenable conceptions of the mind's reality, identity, and unity, and with the true view of its relations to the bodily organism, could possibly be meant by the traducian theory. On the other hand, the peculiar relations which the mind, considered as a real, self-same, and unitary being, sustains to the body are significant, not simply of the fact that man is an animal, but also of the fact that he is a member of a species, — an individual, indeed, but also one of a race. The peculiar relations sustained by every mind to that bodily organism with which it is specially connected have to do, therefore, not simply with single mental states; they have also, in a highly important way, to do with the whole course of mental development. This general fact we are obliged to express by speaking of the mind as though it had a "nature" before it began really to be; and as though this *nature* — or rather the mind when it had only this nature, and had as yet done nothing by way of beginning its development — were transmitted from the parents in their act of generation. But to interpret literally these seductive figures of speech, or to construct a system of metaphysics out of them so as thus to account for the origin of the mind, it is necessary to set aside every truth which the critical metaphysics of mind succeeds in establishing on a basis of ascertainable facts.

Nor is the creationist theory of the origin of the human mind, in the form in which this theory is popularly conceived, any less unwarrantable or even unintelligible. This

theory, somewhat coarsely expressed, assumes that the parents indeed generate the body, but that God produces ("from himself"?) an entity called the soul, and puts it ready-made, as it were, into this body. But as to how one shall conceive of a soul, or mind, that has never performed any of those activities in which the very existence of soul, or mind, is known to consist, — this problem suggests numerous inquiries to which the remotest suggestion of an answer can never be obtained. And after having somewhat scornfully rejected the unitary but unknowable entity which has been suggested by psychological monism as the truly responsible cause of both sets of phenomena, one cannot be consistent and yet accept an equally unknowable entity in the form of a soul that has really not yet begun to be a soul, as the cause of — *no* phenomena. Nor is it necessary further to point out the absurdity which attaches itself to every attempt at the conception of a "ready-made" soul; or of the manner in which, after construction, it is brought hither, as it were, and posited in its tenement of a body.

In brief, the origin of every mind, so far as such origin is knowable or conceivable at all, must be put at the exact point of time when that mind begins to act; its origin is *in* and *of* these its first conscious activities. Before this first activity the mind is not. But even thus it cannot be admitted that, properly speaking, any mind springs into full being at a leap, as it were. For the origin of every mind is in a process of development; as has already been seen, it really exists more and more, and is more and more of a self-same and unique spiritual unity as its course of development runs on. *The existence of mind with respect to its origin, as well as with respect to the degree of its existence, is nothing apart from those activities in which the life and growth of mind consist.* These activities *are* its existence. It begins to be when they begin. It springs constantly into a fuller being, "originating" in a higher meaning of the word in a per-

petual process, as the development of these activities goes on. This very development is one in which the mind comes to itself more and more, as its higher faculties emerge and take control of the series of conscious states.

In a modified way, however, the theory of creation affords the only intelligible explanation of the first origin, and of the perpetual process of originating (or rising into being), which belongs to the individual human mind. At the point at which the inquiry, having been brought thus far, must now be left, a vague reference to the Order of Nature as conditioning the rise and development of every stream of human consciousness would seem to be the last word that can be said. The mode of being and development which belongs to the unique nature of the mind can be only partially ascertained. The conditions under which the stream of consciousness begins and flows along its accustomed course can be only in a measure stated. These are indeed subjects for continued scientific research; but this research reveals certain conditions which take hold on the great and all-inclusive course of the world's universal being and of world-wide events. Out of this Universal Being, without seeming wholly to be accounted for by it, does every stream of consciousness arise. In the midst of this Universal Being — without getting all its laws of development from it, but on the contrary, showing plain signs of a certain unique, self-determined development — does every stream of consciousness run its course. Into "It" at the end, and so far as human observation can follow, every stream of consciousness merges itself. But even in this final relation we cannot say what that is real the soul returns to Nature, having originally received it as Nature's gift. The world of things seems no richer in content because one of the world of souls has seemingly ceased to be.

When, however, this problem of the soul's origin is carried over into the larger domain of general philosophy, and a

clearer definition is sought for our conception of the Order of Nature, one may well reach a substantial agreement with the words of Lotze: "At the place where, and at the moment when, the germ of an organic being is formed amid the coherent system of the physical course of nature, this fact furnishes the incitement or the moving reason which induces that all-comprehending One Being — present not otherwheres but even here — to beget from himself, besides, as a consistent supplement to such physical fact, the soul belonging to this organism."¹ Only as to "the moment when" the being of any soul begins, neither biology nor psychology furnishes any sure scientific information, since neither science can tell when that first activity of consciousness takes place in which, as has repeatedly been shown, the reality of souls consists.

A somewhat similar line of considerations has a decisive influence when the problem of the Permanence of the Mind is raised. Here, too, the terms which are customarily employed — and which must, indeed, be employed by every thinker, since no other terms exist — are all so full of false analogies and misleading figures of speech as to make a critical interpretation quite indispensable to the ascertainment of truth. The popular conception holds that the mind, after it has once been originated and put *into* the body, permanently exists *in* this same body, with substantially the same form and degree of existence, until it departs *from* the body at death. That is to say, the popular conception interprets the space-relations which the terms in current use imply as though they were literally true of the being and relations of mind considered as the real subject of conscious states. And if this popular conception be given a religious turn, whether in favor of or in opposition to the ordinary tenet of the immortality of mind, the same erroneous and impossible assumptions continue to be made. Thus the

¹ Outlines of Psychology (third ed.), § 81.

extinction of any soul may be conceived of as something over and above the complete and final cessation of consciousness. After the actual continuity of the mind's life-history is forever broken off, some additional exercise of force is thought necessary in order to terminate the mind's claim really to exist. Or, on the contrary, the faith and hope that this life-history is uninterrupted, or will be resumed at some time in the future after the bodily organism has suffered dissolution, is made to repose upon an alleged permanency of the totally unconscious existence of the mind. It is even thought necessary by some to maintain, in the interests of this faith and hope, that the soul must always be active, at least as a dreamer, even in the profoundest sleep. Here, indeed, the thought that a totally unconscious soul is scarcely worth preserving forever gets the better of a naïve confidence in the permanence of such a soul. This view of course quite overlooks the fact, that, if not in sleep, at any rate under certain other conditions a complete cessation of all conscious states takes place without the death of the body; and also that most of our dreams are scarcely of a character fit to make them serve as worthy permanent occupation for an "immortal mind."

Our treatment only aims to leave this question of the permanence of mind in satisfactory shape for delivery to ethics and to the philosophy of religion; and this aim may be accomplished by briefly considering certain phenomena well known to psychological science, in the light of valid metaphysical conceptions of the mind's reality, identity, unity, and real relations to the bodily organism. The phenomena are of the following order: If the whole round of conscious states is subjected to all the means of observation, direct and indirect, which are known to modern psychological science, all degrees of intensity, complexity, and variety in mixtures (so to speak) of higher and lower forms of mental activity are brought to view. This general fact may be

illustrated by comparing certain classes of conscious states with others that closely succeed them; or by contrasting the total conscious experience of one individual with that of another individual; or by viewing the earlier stages of development in the light of the later and more mature stages, in the case of any mind that comes at all fully to the realization of itself as mind.

If, for example, we compare the phenomena of consciousness with one another, as they occur in the diurnal changes of every adult's experience, we observe great fluctuations in the intensity, complexity, and relative predominance of the so-called "higher" over the "lower" forms of mental activity. Periods characterized by great intensity of sensation with a vivid coloring of pleasure or pain, or by strong emotions of anger, fear, etc., or by strenuous and noble sentiments of art, duty, or religion, are quickly followed by other periods where the sense-consciousness nearly or quite disappears, quiescence of feeling takes the place of positive pleasures or pains, and the stream of emotions and sentiments runs shallow and thin, or seems quite dried up. The man who has just been most profound in thought and witty in speech, or who has a moment ago reflectively considered and resolved upon the wisest and most comprehensive plans, falls asleep. As he descends along its steep curve into the extreme fastness of slumber, what he calls his mind briefly disports itself with silly and incoherent images that are thrown up feebly above the threshold of consciousness by the mysterious forces working unseen below; or it wills, as a poor slave of nature, to perform the most insane and immoral deeds. Thus do the great and wise ones of earth, during every period of twenty-four hours, run through the whole scale of mental performances. This scale itself extends from transactions that seem half animal and half vegetable (if we may for the moment assume the myth of a soul for plants to be true) to those that have in them more than a trace of what is most exalted and divine

What is true as to the almost incomparable variety of conscious states in the brief daily experience of such minds as best epitomize the whole compass of mind-life for the race, is also illustrated when we compare the mind of one man with that of his fellow. Some of these differences admit of a sort of measurement and reduction to terms expressible in more or less accurate mathematical and other formulas. But some of them seem irreducible to and inexpressible in any such terms. Thus the psychologist is led to ask the question, "How shall we measure that growth of mental life which consists both in deepening and in broadening, both in intenser feeling and in higher analytic skill, and not less in free and rational choice? How shall we state in terms of mere number and quantity the difference between the 'fields of consciousness' in the life, on the one hand, of Aristotle and Kant or of Shakespeare and Goethe, and, on the other hand, of the most degraded Bushman, of the hopeless idiot, or of Peter von Hackländer the soldier, who could never remember at one time more than two of the three ingredients of gunpowder?"¹ The range of conscious states, in respect of all the characteristics which psychological science discovers in these states, appears immense when the highest are compared with the lowest among the countless multitudes of the human race. Every individual, too, who does not in his life-history afford a case of "arrested development," who has indeed a true mental *life-history*, runs through a wide extent of manifold differences as estimated by comparing his earliest with his most mature and significant mental performances. *This "capacity of development" is, both as respects the race and as respects the individual member of the race, the important and all-inclusive characteristic of the mind of man as compared with the lower animals.*

In view of such a study of the phenomena of consciousness as the foregoing comparisons suggest, all the conscious states

¹ Psychology, Descriptive and Explanatory, p. 45.

may be regarded as capable of arrangement along a scale whose upper termination is quite indefinite, but whose foot rests upon the zero-point where consciousness appears to emerge from the unconscious. Two questions, both of which are partly scientific (or, at least, have their points of starting in facts that admit of an empirical investigation) and partly speculative, at once suggest themselves. These questions are both connected with the problem of the permanence of mind. First, are all these so varied phenomena of consciousness to be regarded as belonging to one and the same subject, — namely, to that real being which knows itself as really existent, identical, and unitary by exercise of its powers of self-consciousness, recognitive memory, and reflective thought? Second, is this same being to be spoken of as permanently existing, though unconscious, and so capable of “subliminal” modifications and performances, — that is, as a mind that does not, for the time being at least, know itself as mind, or do any of the work of mind? To answer both these questions affirmatively gives the fullest possible support to the popular conception of the permanence of mind. It will at once appear, however, that these two questions do not stand on the same grounds as claimants for the support of that critical metaphysics of mind which the previous discussions have established.

The so-called “tripartite” division of man into body, soul, and spirit introduces the latter two of its three divisions in the supposed interests of the superiority and relative permanence of certain conscious activities over others. By giving to man a “spirit,” as something over and above a soul, this theory thinks the more truly to separate him from the other animals. For why, indeed, since some principle of conscious states which may serve as their subject would seem to be needed for at least certain of the animals, should it not be said that they too have souls? And, further, if it belongs to the very nature of souls to exist, even when they

are doing nothing by way of being conscious, why may not the souls of our horses and dogs be immortal? But if man plainly possesses something in the way of characteristic types of conscious activity which the other animals do not have, there would seem to be a genuine advantage in giving to this something a separate name. Let it then be called "the spirit of man;" and let it be conceived of as a second being put, together with the soul, into connection with the animal body. And since its origin is different, and its very nature immortal, it may well survive the shock which terminates the existence of both the bodily organism and its dependent psychic principle (the "animal soul").

The theory just propounded is, however useful it may be as the servant of practical or religious ends,¹ absolutely untenable on grounds of psychological science. For, first of all, it assumes to draw a perfectly arbitrary line through the phenomena of consciousness, — assigning those on one side to the soul, and those on the other to the so-called spirit. But the science of these phenomena shows that all the highest activities of the mind develop upon a basis of the lower activities; and, indeed, that the higher are, as activities, only the resultants of the growth, in complexity and comprehensiveness, of the very same psychical powers by which the mind-life takes itself in hand from the beginning. Moreover, the difference between the states of consciousness and the entire characteristic development belonging to the life of consciousness, as these states and this life appear when man is compared with the lower animals, cannot be measured or expressed by assigning to him some particular set of characteristics that are, as it were, added

¹ The tripartite division of man's being is more frequently than not put forward as the view taught by the Biblical writers. Such a proposition it does not, of course, accord with our purpose to discuss here. A careful examination of the subject in a philological and historical way shows, however, that no such psychological theory can be derived from, much less be defended by, the Biblical writings.

to those which he has in common with them. Man's "reason," or the "spirit that is in man" is not to be regarded as a sort of mansard roof built on to one dwelling in a block, all the dwellings in which are otherwise substantially alike. On the contrary, in every set of characteristics, from those called lowest to those pronounced highest, the soul of man differences itself from the soul of any other species of animals. Indeed, each *kind* of soul is just that kind which it really is, and no other, on account of the peculiar complexity of those states of consciousness and the peculiar character of that history of development which mark it off from every other kind. And, finally, the tripartite division, which becomes a bipartite division in the realm of mind, reaches the height of absurdity when it finds itself forced to assign essentially the same psychoses now to the subject that it entitles an "animal soul," and then again to the subject which it dignifies with the name of "rational and immortal spirit."

If then the permanency of the mind's being and activities in all the states of consciousness is to be maintained at all, the lower forms of such states — down to the very zero-point of intensity, complexity, and ideal value — must be assigned to the same subject as that which has been discovered to be self-known in all the higher forms. To this view there is no scientific objection; on the contrary, everything is in its favor. On the one hand, without something more than mere consciousness, — considered as content of sensation, feeling, or ideation, — without *self*-consciousness, the reality, identity, and unitary character of the mind could not be established at all. But on the other hand, when these characteristics are once established by the development of those activities in the actual exercise of which such reality, identity, and unity consist, we do not need another subject to be responsible, as it were, for the inferior activities of consciousness. In self-consciousness, recognitive memory, and reflective thinking,

the mind shows what it really is, — a being with intellective capacity. In the higher forms of æsthetical and ethical emotion and sentiment it expresses its true nature as capable of affective changes. In intelligent, deliberative, and responsible choice it exists as the supreme finite exhibition of that reality which belongs alone to a being who is self-active and free. But *it* — the same mind — also suffers the sensuous bodily pains and pleasures which are most nearly akin to those of the lower animals; it, too, wanders in the incoherent and almost idiotic imagery of dreams, and acts with an unthinking and machine-like regularity in many of its habitual forms of conation. Indeed, it not infrequently, whether in waking hours or in natural or hypnotic sleep, divides itself, sets itself over against itself, and dramatizes in most wonderful fashion, as was shown in one of the earlier chapters (chap. V.).

It is scarcely necessary in detail to argue the propriety of making a unitary mind the permanent subject of all those conscious states, however low or high in kind or different in intensity, which belong to each individual stream of consciousness. Some of the reasons why this is habitually done by scientific psychology may, however, be mentioned. And, first, an interchange, as it were, between those activities of consciousness that are actually appropriated to the Self and those that are not so appropriated, is constantly taking place. Items of self-conscious and reflective knowledge not infrequently drop down below the "threshold" of consciousness and never recur again, so far as appears, except in the shape of vague and flitting imagery in dreams. Again, that which we are obliged by various considerations to judge occurred in some moment of almost unconscious revery or in some low dreamy state, all at once springs into the clear light of self-consciousness and accuses the astonished mind of being its very own progenitor. The pale images of past acts of highly developed self-consciousness make up, in part, the phenom-

ena of the most purely vegetable conditions of mind; and acts of recognitive memory, in turn, serve to attribute to the Self, as a part of its true life, what was originally deemed unworthy of even a passing notice.

Moreover, as the scientific study of mental phenomena plainly shows, there is no sufficient warrant for that classification into higher and lower which the tripartite theory assumes; nor are the two classes of faculties assigned respectively to spirit and to soul separable in any of the complex states of consciousness which make up the actual life of the mind. Genius and tact, on the one hand, and blind psychic or psycho-physical mechanism, on the other hand, often simulate each other's performances; or they work hand in hand for the attainment of a common result. In all the most deliberate thinking and planning, that which arises into the stream of consciousness from the depths of the psychic automatism, or even (seemingly) from the unconscious foundation of psychic being, mingles freely with the current of the self-conscious life. We are beholden to this half-conscious or unconscious side for much of the most fruitful results of what we call *our* intellectual effort, and for many of our most successful and brilliant plans. The lines of obscure feeling, of the reasons that are effectual without conscious knowledge of the reason why, blend inextricably with those which we consciously hold in our hands for the guidance of ourselves and of others whither we have intelligently willed to go.

In brief, the actual performances and the real life-history of every mind are quite too much of a unity to permit the supposition that the agent, the subject of the history, is two beings rather than one. Each of those great psychological principles which must be assumed as exemplified in the development of every human mind emphasizes this truth. Here, once more, conclusions may be quoted that have elsewhere¹ been established as the results of detailed scientific

¹ Psychology, Descriptive and Explanatory, pp. 658 f.

examination into the import of actual mental phenomena. "There *are*, it would seem, certain principles which belong to all development of the mental life of man; and every state of consciousness, and every stage of so-called faculty in every stage of its formation, appears to conform to these principles. They cannot, indeed, be thrown into the terms of mathematical formulas. To attempt this would be not to increase real science, but only to put forward the pretence of science. We must, therefore, be content to state these principles in the somewhat vague general way which becomes their nature; and we distinguish the following four: The principle of Continuity; the principle of Relativity; the principle of Solidarity; and the principle of Teleological Import. . . . By the principle of Continuity we understand that *when the mental life is regarded as a whole, no breaks or sudden leaps are found, whether as between its factors and faculties, or as between the different successive states and stages of its development.* Stated more positively, the very distinctions by making which the factors are differenced and the so-called faculties defined. in the real life of the mind shade into each other; and the evidence of growth and progress which mark the different parts of the life of consciousness, in each period of growth and each degree of progress, are such as connect the whole into one process of becoming. In a word, the very nature of the mind, so far as science can observe it, is seen in this unbroken vital flow. Its being is in being just such an uninterrupted stream of psychic life." [The important differences between this kind of "continuity" and that which belongs to the movement of a body in space, or to the increase in intensity of a physical process from a minimum to a maximum, have already (pp. 139 f.) been sufficiently emphasized.]

"By the principle of Relativity, as we understand it, — negatively stated, — it is denied that any psychic factor or complex psychosis can exist without having its own definite

quality, quantity, tone of feeling, value in combination, and influence upon simultaneous or successive factors and psychoses determined by the *relation* in which it stands to other factors and psychoses in the entire mental life. Or — stated positively — *every individual element or state or form of mental life is what it is only as relative to other elements, states, and forms of the same mental life. . . .* Putting the two foregoing principles together, we may say *the true picture of mental life is that of a continuance of interdependent psychoses*; or — if we may be so far metaphysical — *descriptive psychology ends in adopting the conception of a being with a unique unity of nature and an equally unique history of development.*”

“By the principle of Solidarity we intend to emphasize all that is accomplished in mental development, under the foregoing two principles, by the working of habit, in the widest possible meaning of this latter word. The mental life in its development is a whole in which the continuity and relation of all the different factors, aspects, states, and stages must be recognized. But more than this, — to speak with no unmeaning figure of speech, — *the effect of every partial or complete working of the psychic mechanism is felt upon the weal or the woe of the whole development; and this development necessarily tends toward some kind of unification of result.* To say this is scarcely more than to call attention to the truth that in psychology we are dealing with ‘biological’ phenomena; the being called Mind, whose history is the subject of our study, is a life. Furthermore, it is of all known forms of life incomparably the most complex, the most full, at first, of undefined possibilities.”

Finally, “we call attention to the fact of the Teleological Import of all mental development. No science of the life of mind is possible without recognizing the presence of final purpose in the collocation and arrangement which the phenomena come to have, as the stream of consciousness flows

on. . . . *Activity to some purpose is the ruling principle of mental development.* The self-conscious, intelligent adoption of a plan and selection of means for its pursuit is distinctive of the *acme* of man's development. The more comprehensive this plan and the wiser the selection of means, the higher is the standing of the individual in the scale of intellectual development. But ends suggested by æsthetical and ethical sentiment seem adapted to control large spheres of human activity; and the latter especially, from the very nature of the mandate with which it sanctions the end that promises its own satisfaction, has at least a sort of phenomenal supremacy. But meanwhile the principles of Continuity, of Relativity, and of conscious and unconscious Habit, forbid that any consciously accepted end should be isolated, as it were, from the entire life both bodily and psychical. And when we regard the working of all these principles, in every detail of mental development, we become aware that *the import of final purpose in the mental life extends far beyond the conscious adoption of ends on our own part.* In other words, the stream of consciousness appears not so much as a current flowing we know not whence nor whither; but rather as a current designed from the beginning, both as respects its observable surface and its hidden depths, — partly self-directed and partly impelled by hidden forces, — to the fit performance of a certain work. But what that work most fit is, if any such there be, scientific psychology does not investigate.

“In fine, a combination of all these principles, as they appear in their actual operation, secures for every so-called stream of consciousness that continuity, related action, solidarity of character, and that intelligible import as judged by the light of ends and ideals which are necessary to the history of what we call a Soul, or Mind.”

The science of mental phenomena, therefore, shows how unscientific and even absurd are the views into which we

are led by adopting the tripartite division of the being of man, especially since this division assigns the psychical phenomena to two subjects, rather than to one, — and these two belonging to different orders of being, as it were. On the contrary, this science culminates in the conclusion that all the different orders of phenomena which are alike entitled to be called psychical, or phenomena of consciousness, must be assigned to *one subject*; for they are inextricably bound together under the foregoing principles into the actual unity of a mind's life-history. This conclusion affirms the *permanence* of mind as the one being to which must be assigned not only all those activities which are actually (as self-conscious) appropriated to this Self, but also all those other conscious activities and seemingly more passive states which are in any way known ever to have arisen within the stream of consciousness.

But what has the metaphysics of mind to say about alleged psychical processes which are "unconscious," "subliminal," or "below the threshold," to employ certain justifiable figures of speech common in scientific psychology? What and where is the mind when "*it* has" no conscious states; or better, when no psychoses, or phenomena of either consciousness or self-consciousness, exist; when, in fact — so far as can be judged by the most unprejudiced interpretation of the indications — the stream of consciousness has for the time run obviously dry, or disappeared underground? Is *Mind* to be spoken of as the still existing and *permanent* subject of such hypothetical processes?

Even on approaching such questions as those which have just been raised, it is again particularly necessary to strive for clear conceptions to attach to the words which are employed. And he must have had a uniquely gratifying experience in consulting the customary ways of proposing these questions, as well as the different possible answers given to them, who has found words always employed in

this way. It should also be noticed that the investigation of such questions is an entirely different affair from the investigation of most of those problems, even the more perplexing and profound, which psychology hands over to the metaphysics of mind. The answer, if any answer at all is to be ventured upon, must here be particularly hesitating and tentative. Nor is there, from the very nature of the case, good reason to suppose that more careful researches will change the mental attitude of the cautious observer and clear thinker toward this class of inquiries.

The facts which propound to psychology the problem of unconscious mental processes are of the following order. First, comes the very seductive influence of considerations similar to those which have just been admitted in evidence for the permanence of mind. Conscious states vary in respect of all their characteristics, from a maximum (which is different for different individuals) down to "zero," or a vanishing point; and yet we assign them all to the one subject, the Mind. The temptation becomes almost irresistible to go on, under cover of the same convenient figure of speech, and to follow this same psychical existence into the realm of the so-called "unconscious," or — to use another phrase — "beneath the threshold" of its own conscious states. That which is thought of as one and the same existence down to the very line (the so-called *threshold*) where its conscious activities cease, and which — as it were — comes up the same on the other side of the period of cessation, can with difficulty be thought of as passing meanwhile entirely out of the realm of existence.

Moreover, there appear to be many instances of activities — and these resemble such as are ordinarily performed in consciousness — which either cannot be remembered as consciously performed, or else which seem somehow to have got themselves done without absorbing any part of the real though unremembered conscious life of the soul. Some

such activities were considered when the phenomena of so-called "double consciousness" were discussed (see pp. 169 f.).

But besides these semi-conscious (?) activities there are certain experiences for which "unconscious cerebration" or "subliminal" psychical processes are customarily assigned, as two rival theories of explanation. An accountant, for example, goes to sleep after the vain effort to detect the error in his reckoning, or to solve some difficult problem in figures; his sleep is dreamless, or at least he has no reason to suppose that he has dreamed of the subject most on his mind when he fell asleep; but in the morning the error at once stands detected, or the problem without further reflection is immediately solved. Perhaps this detection of error or solution of problem flashes upon the mind in such a way as to suggest that real mental work, though of the unconscious order, must have been done during the hours of sleep. The naturalist, the inventor, the planner and thinker in any kind of research, may have a similar experience. [At this point it may perhaps pertinently be asked why so much stress should be laid on seemingly abnormal or remarkable phenomena of this order. For the influences which determine every train of associated ideas, and (for that matter) all the articulated and habitual movements of the bodily organism, seem largely to enter only partially into consciousness; they belong in large measure to the mental (?) region which is "subliminal" or below consciousness. Indeed, the perception of every object — those psychical activities which make the visual or tactual object arise in consciousness as just what it is and no other — goes on to a very large extent somewhere and somehow, so as to escape the eye of consciousness.]

When we pass from the facts of more ordinary observation to the facts that are more than ordinarily impressive, we may be puzzled and delighted by the hour with astonishing feats performed by "unconscious mind." It is needless for the

present purpose to select and repeat any of the more remarkable of these stories. Yet here again it should be remembered how common and ordinary, as mere facts, are similar performances on the part of almost all species of animals; even the plants unconsciously (?) perform deeds that simulate a more than human wisdom. The man *A B* is esteemed more than ordinarily favored among his fellows, because he can set his cerebral and psychical mechanism, sleep serenely and soundly, and wake to catch the train at precisely 4.15 A. M. But many plants can do almost as well as this, because they somehow have the mechanism in their inherited molecular structure set for them. Other plants know, without consciousness, just in what direction to reach for the support they seek. Here might also be instanced all the phenomena of instinct in animals and men, as well as those performances which, for lack of a better word, may be spoken of as due to tact, and many of the doings of genius, — the deeds of mathematical, musical, and mechanical prodigies. Or if one is in lack of large enough store of illustrations ready at hand, one has only to turn to Von Hartmann's "*Philosophie des Unbewussten*," and one finds examples collected there by the score and by the hundred. For it is by no means true of man alone, but it is rather less true of him than of many of the lower animals, that what is done *for* him in a planful way so as to express itself in the bodily manifestations of the stream of consciousness, or even in the very content of the stream itself, is far more than what is consciously done *by* him.

There can be no doubt that all explanations which do not recognize the proof of mind in such performances as these are quite unsatisfactory. The truth is that no wholly new explanations for such performances, as compared with the explanations given for the performances of mind in consciousness, are possible. *The psychology and the philosophy of the so-called "Unconscious" have, no terms to employ and*

no arguments to present which are not themselves the products of human consciousness.

First, then, the appropriate materialistic explanation is proposed for these facts in the term "unconscious cerebation." It is indeed somewhat difficult to find a clear meaning for such a term as this. For of course, strictly speaking, all mere cerebation (cerebation as such) is unconscious. Cerebation is a word which, if it mean anything definite, must be allowed to stand for those peculiar forms of molecular change — the nerve-commotions — which occur in the cerebrum. Now physiological psychology shows that certain nerve-commotions in this organ, whether centrally or peripherally initiated, — chiefly, it would seem, from lack of intensity, but also perhaps for other unknown causes, — are not accompanied by changes of consciousness. Unconscious cerebation, therefore, means nothing about which any knowledge is obtainable or supposable, except nerve-commotions in the cerebral substance that are unaccompanied by consciousness. And it cannot well be doubted that there are instances where, as we have already seen (pp. 325 f.), the psycho-physical parallelism (in whatever meaning we may properly apply to this term) is broken quite off, because one of the two parallel series has ceased for the time to exist.

But it is certainly a very strange and illogical procedure to identify cerebrations with true psychical processes, just at the very point where the one common characteristic (namely, consciousness) of all that is known about these psychical processes has wholly deserted us. On the other hand, if the materialistic hypothesis is found inadequate in the account it gives of those actual psychoses or states of consciousness which are known to be correlated with brain-states, it will scarcely prove more satisfactory to revive it in the interests of explaining subsequent states of consciousness by means of hypothetical cerebrations that, *ex hypothesi*, are productive of no concomitant states of consciousness.

When, however, the opposite or spiritualistic hypothesis, in the supposed interests of the permanent being and unceasing activity of mind, reasons about unconscious processes as though they could be true psychical performances without being phenomena of consciousness, it encounters materialism at one of its own most exposed points. For what this hypothesis now continues to call psychical or mental, and mind or soul, has lost every known characteristic that distinguishes it from the non-mental, the material, and soulless performances of mere brain. How then can it answer the invincible materialistic argument which might well take something like the following form? Of cerebrations, or doings by the brain, there is as much proof when consciousness lapses as ever before. It cannot be supposed, for example, that this sound sleeper, or that man in a swoon, — this human animal acting in an instinctive and yet planful way, or that clairvoyant or hypnotized subject, — has all at once lost from the skull the cerebral substance with its cerebrations innumerable. But these particular cerebrations now occurring are unconscious; that is, they have no representative in consciousness, — the one universal characteristic of all true mind-states and real mental existence, so far as known. And yet your spiritualistic hypothesis asserts that these unconscious performances, too, are to be called psychical, and affirmed to belong to the mind. What can be scientifically clearer than the propriety of assigning them to the only subject of whose existence and activities, in all such cases, there is any real proof, — namely, to the brain? But if the brain can do these things, can be the only real subject of any such activities as the spiritualistic hypothesis is willing to call genuinely mental, why not of all the phenomena of consciousness? In other words, from the conclusion that the unconscious is sometimes to be identified with the mental, it is but a step to the conclusion that consciousness is mere insignificant sur-

plusage of the mental; that it is *epi*-phenomenal. Not only these unconscious mental phenomena, but all so-called mental phenomena may then be thought of as really phenomena of the brain?

Spiritualism, having once parted with that test of the psychical (namely, consciousness) which is acknowledged by all theorists to be quite incomparable with every kind of physical phenomena, can no longer appeal to its own argument as invincible proof for the reality of the mind. And what that has any value would it have saved from the dark abyss of non-existence, in case its argument from the nature of the subsequent states of consciousness to unconscious psychoses and mental being were accepted? Nothing, it would appear. For of such an existence as unknowable and merely hypothetical "mind-stuff" nothing can be affirmed; and to such an abstract entity no value can be assigned. All affirmation of existence and assignment of value to existence must be made in terms of conscious mind-life.

Further difficulties, which are far more than merely polemical, emerge as soon as the effort is made to think out the meaning of terms that affirm existence of unconscious psychoses and unconscious mind. Surely, the term "psychosis" is not to be employed for any sort of processes that are not processes in consciousness. It is precisely this — a conscious state, or a factor or aspect of such state — which is meant by the word psychosis. The psychical is the conscious; and thus the psychical is distinguished from the physical, which we conceive of as the non-conscious; or, at least, which we do not conceive of as conscious. Nor does it ease the pains of thought simply to change the word upon which the thought is bestowed. To conjecture that processes exist and are going on which are neither *in our* consciousness nor *of our* brains, but which must be called "mental," does not help the matter. For either these processes which are not in our consciousness must be in some other con-

sciousness, and that other consciousness must be assigned to the subliminal Self (our *alter Ego*), or they must be called the consciousness belonging to the basal ganglia, the spinal cord, etc.; or else they — being processes in no consciousness at all — are indistinguishable from the non-mental in general.

Inasmuch, then, as we cannot imagine, not to say prove, the existence of unconscious but truly mental processes, the basis in fact for believing in the mind's existence as a real being whose are the conscious processes when no conscious processes are taking place would seem to be wholly gone. We seem forced, then, to the following conclusion: There is ample scientific ground for affirming the permanent real being of the mind as the subject of all the conscious states, of that entire stream of consciousness which constitutes the life-history of each mind. An invincible argument of the metaphysical order may be built on this ground of fact. But to talk of unconscious psychoses or mental states is to talk of the inconceivable, — of "wooden iron," of the "unconscious-conscious," as it were. And to reason about the permanence of mind, *quoad* mind, when no actual psychoses are known or assumed as taking place, is to jeopard all sound argument in the philosophy of mind. Such a spiritualistic hypothesis can only end in reducing our metaphysics to unverifiable and meaningless jargon about abstractions, such as "things-in-themselves," and "souls-in-themselves;" — mythological entities that belong to the "death-kingdom" of abstract thinking, instead of to the living realm of known realities.

Now, finally, to leave the matter under discussion in this shape will doubtless be unsatisfactory to all students of mental life, — to those who remain bound by the ordinary naïve metaphysics of reflective but untrained minds, and also to those who are expert in metaphysical criticism. The former will at once ask, with a puzzled or a scornful air:

Where, then, is the mind, when it is not conscious (as in deep and dreamless sleep, or in swooning, or in cases of severe accident)? And if the mind does not abide always, with all its powers still existent and ready to spring forth into action at the first favorable opportunity, how can it ever reappear in being again, in full exercise of the same powers, just as though it had been at work meanwhile in some invisible sphere? Surely, it must be admitted that there is something ghostly and unreal about such an intermittent mind as this. How can it at one moment claim invincibly to be the realest of all realities in the world, and the next moment cease to be real at all?

Even those wise in metaphysics will sympathize, while only partially yet all the more intelligently, with the popular objections. They will not, indeed, ask, *Where is the mind?* for they know too well the folly hidden in that form of question. But they will feel it to be inconsistent with the dignity and the power to persist, which all thought attaches to the word reality, that any being which behaves in this intermittent way should be said to be real.

The answer to the first of the two questions just raised in objection to our previous development of the doctrine of the mind's permanency is by no means difficult to find. The question, *Where is the mind?* — whether while it is self-known as conscious of its own being and states, or when it must be conceived of as inert and unconscious "mind-stuff" — can receive only one answer. Taken literally, as applied to the spatial meaning of the word "*where*," it must always be answered: The mind is never, whether conscious or unconscious, anywhere. Spatially considered, the self-conscious subject of all the conscious states is not to be conceived of as diffused like a subtile gas through all the bodily members; nor as spread out with an equitable distribution over the cerebral centres; nor as located with a special residential preference for the pre-frontal areas; nor

as moving from cerebral centre to cerebral centre (like a poor tenant changing houses in a crowded city, or a bird hopping from branch to branch on a tree); nor as immovably "seated" at some particular minute area or mathematical point in the cerebral substance. If by Mind be meant the self-known Subject of all the conscious states, then the spatial meaning of the word "where" is absolutely and in all possible modifications alike inapplicable to it. The mind is nowhere, anywhere, or everywhere alike, because it has no "whereness" at all, if we may be pardoned so uncouth a word.

Just at this point, however, it is likely that the astonishment of the reader untrained in the metaphysics of mind will reach its height. In deference to this natural astonishment, then, let it be added immediately that what is meant by applying such terms to the mind is simply this: There are certain classes of established relations, either indubitably known or fairly inferred, which exist in reality between the conscious activities of the mind and the locality and functions of the bodily areas. The latter are indeed known in consciousness only as "out" and "spread out" in space. These bodily areas exist in space, and all their functions are physical changes of the spatial order. [What it really is to be "in space," to "move in space," etc., is not now the subject of inquiry; to answer such questions belongs to general metaphysics and not to the special philosophy of mind. Nor is it necessary for the point under discussion to use these words in any other than their popular significance.] But the conscious states of the mind are dependently connected, in a most intimate way, with the locality of these bodily areas, and with the character of their spatial properties, and with their changing spatial relations. It is this general order of facts, with the inevitable conclusions from them, which is had in regard and borne witness to whenever one speaks intelligently of the mind as "*in* the body," or "*in* the brain," or *in* any particular part of the brain.

The facts of experience belonging to the above-mentioned general order are of two main classes; one of these is emphasized in the daily experience of every individual, while the other is the discovery of modern science. First, then, all experience of the spatial qualities and spatial relations of things is indissolubly connected with the condition and activity of certain areas of the bodily organism; and many of these areas are themselves immediately known by use of other areas of the same bodily organism. But more especially, certain experiences — and those often the most interesting, and most fraught with immediate or with threatening pains and pleasures — consist of perceptions of the bodily organism as a part, so to speak, of our very selves. For example, *our* arms, legs, and trunk, so far as the front side of all these members is concerned, are known by *our own* eyes as spatially extended and as moving in space; and various areas of the external part of the body are constantly being undesignedly felt or intentionally explored by other areas (chiefly, by the hand) of the same body. But certain more definitely sensuous experiences, so far as painful or pleasurable, — with however slight or strong a “tone” of feeling they may be tinged, — are localized in some of the external or interior organs of the body. And even our purest exercises of thought or indulgences in sentiment are never free from at least the possibility of some tinge from this “somatic reverberation.” The reason for all this is the more evident when it is considered that attention itself, as the constant accompaniment of all consciousness, requires as its concomitant and support the use of the motor-organism and the consequent modifications of so-called “motor-consciousness.” For further instances and for the psychological exposition of this class of phenomena we may now content ourselves with a reference.¹

¹ To “Psychology, Descriptive and Explanatory,” pp. 519 f. and to the earlier chapters of this book, pp. 87 f.

The metaphysical meaning of the foregoing order of phenomena cannot, however, be expressed in terms of space. Indeed, the very effort to do this lands us in a region of gross absurdities. Their metaphysical meaning is expressible only in terms of relations between conscious states and the spatial qualities and changes of the bodily organism. In other words, the popular language is a naïve, concrete, impressive, and yet figurative way of expressing the dependent connection of certain conscious states upon the observed changes of the bodily organism. Only in this way can any one speak of the mind as either spread throughout, or seated within, the body.

Essentially the same conclusion follows with respect to the modern science of the relations of the brain to the conscious states. This science has indubitably shown that the "consciousness of being in" the peripheral parts of the body is illusory; that this consciousness is itself, as it were, a figure of speech. The same kind of consciousness may be extended into the stick that is carried in the hand, or into the clothing that is worn over the head or the trunk. It has been experimentally demonstrated that the connection of all the peripheral parts of the body with the states of consciousness is established through the central nervous system; and in man's case it has been made highly probable that this connection is only through the cerebral hemispheres. In addition to this general conclusion, modern science has gone on to point out special connections between particular areas of the cerebral hemispheres and particular states or factors in the complex states of consciousness. To establish all this is the aim of the doctrine known as the "localization of cerebral function." But all hope of finding any one single point, or single minute area, where the soul may be hypothetically seated seems to have perished; and this not because the limits of knowledge have been reached, but because increased exploration has made us familiar with the whole territory.

The *meaning in metaphysical terms* of these facts of cerebral science, as has already been said, is essentially one and the same with that which interprets critically the popular experience. Only now it is the brain, with its several areas, instead of the body at large, which is known to have these mysterious real connections with the conscious states. We are here, then, face to face with the very same problem which has already been discussed with such detail,—namely, that of the relations in reality between body and mind.

If, now, the attempt to vindicate the literal interpretation of all spatial terms as applied to mind in the interest of its supposed permanency, is abandoned, there still exist grounds of objection to the view that its being ceases with the total and yet temporary cessation of consciousness. Examination of these grounds, however, shows that they all concern the conceptions which men feel compelled to hold regarding reality in general; that is to say, concerning the answer to the questions, what it is “really to be,” to “come into” being and “to pass out” of being, “to become,” “to appear,” “to manifest one’s self,” etc. And here, contrary to the common opinion, our fundamental faiths are no more vague and uncertain, our ignorance is no greater or our knowledge more strictly limited, with respect to the existences we call our minds, than with respect to those existences we call things. For all human experience of things, too, immediately considered, resolves itself into only this,—a series of intuited, remembered, or inferred impressions. Not souls alone, but all physical beings (and the latter, it might even be said, especially) are in a constant process of becoming. *The known being of all things consists in their modes of becoming.* When they lapse, as they all constantly do, from our consciousness, and then return in forms which we remember as sufficiently similar to seem to warrant such a metaphysical hypothesis, we affirm: They have been really existent all the while; they have been *permanent* in being. This permanency of their

being, while no knowledge of them is, must be taken on faith ; or rather all our knowledge of things, as permanently existing, is suffused with this ontological faith.

In like manner also are the observed changes and performances of things explained by changes and performances which never have been observed and never can be observed ; and not a few of these unobserved performances seem to be very different from those which any thing has ever been actually observed to do. The whole theory of the conservation and correlation of energy, so far as it depends upon so-called "storage" of energy, is of this order. And so is the imagined behavior of the atoms in chemical combination. What can give greater token of being no real thing, as any ordinary thing is known to be, than luminiferous ether, for example? But why multiply instances? *The entire structure of modern physical science, if this science is to be understood as representative of real beings and real transactions, is sustained in "permanency" by similar metaphysical hypotheses.* Nowhere, according to science, is the visible and the tangible also the permanent; the things that are seen do not remain, but the things that are unseen are supposed to be eternal, and it is these which explain things as we perceive them to be.

It follows, then, that every reflective thinker will decide the problem as to what that is real can be validated from all this hypothesizing, according to his ultimate conceptions of the world of reality. But between material things and minds, in respect to the subject now under discussion, there is one most important and decisive difference. The hypothetical doings of things, at such times as they are not "*in consciousness*" (that is, not in any way observable), are at least in some measure analogous to the doings which have been observed. This is certainly true in so far as all these forms of doing can be reduced to modes of motion, — while, to be sure, it is quite inconceivable what transaction in reality of which *things* are capable is meant by a mere "tendency" to

motion; since only minds can "tend" to do and not actually perform.

When, however, minds are deprived of their consciousness, all that is characteristic of their existence as minds has totally departed. Whether then one will speak of them as existent yet unconscious, or nor, — if by thus speaking be meant anything in any way intelligible, — will depend upon the permanent relation which one conceives of them as having to the whole world of reality. *The existence which unconscious minds have, if they are to be thought of as having any existence at all, can be nothing but a certain abiding relation to all reality.* Unconscious finite minds exist *only* in that "World-Ground" in which all minds and things have their existence. What is meant by such a statement as this, and the proof of this statement, if it be accepted at all, it does not belong, however, to the present treatise fully to discuss.

We come, with this negative conclusion as to the permanence of the being of unconscious mind, to a reconsideration of the phenomena. And now, as it seems to us, the phenomena can all be accounted for in strict consistency with psychological principles which apply to the most ordinary experience; the hypothesis of entirely subliminal but genuinely psychical activities is unnecessary. It must be remembered again, however, that what is called "ordinary" is often found to be the most mysterious, when we are in search for its ultimate grounds.

The supposition that the solution of problems, or the flashes of intuition into new truths, which sometimes follow periods of the relative or seemingly complete cessation of conscious activities of reasoning, are due to unconscious but mental processes is quite unnecessary. The fact of experience is this: Even in our most exalted conscious use of our ratiocinative powers, the new truth that comes to us is not wholly — it is not, as a rule, chiefly — the result of our conscious reasoning. Argument, in general, is valuable chiefly as a means of setting

forth the truth, rather than as a means of its discovery. Let the thinker on any form of a complicated problem consider how its solution is really got by the mind. In the full tide of conscious discourse with himself, it is not as carried along on the surface of this tide that he reaches the desired object. The rather is the truth shot up from the hidden depths below into this tide; it appears presented for seizure to consciousness as the gift of the unconscious. In similar fashion are the happy hits of inventors, the rare achievements of art, the plans of political and military genius *bestowed upon* the mind rather than consciously *wrought out by* it. Nor can one fail to notice as significant the connection of all such experience with the conditions and nature of "tact," of "instinct," and especially of the astonishing performances of somnambulists, clairvoyants, hypnotic subjects, and persons of hyper-æsthetic sensibilities and susceptibilities of various kinds. Indeed, it is our growing conviction, as students of psychological science, that all these phenomena (which are ordinarily considered most inexplicable because most rare) will finally be explained as only further extensions and unusual combinations of the most familiar psychological principles.

If, then, credit is to be given, as it were, to the unconscious activities of our own minds for those results in consciousness which follow states of relative or absolute unconsciousness, such credit must be extended quite indefinitely. For the credit of much of our most brilliant and impressive activity *in* consciousness undoubtedly belongs not *to* consciousness; it belongs to somewhat or to some One of whose doings we, as conscious Egos, are not immediately conscious. And the same thing is true, not of man alone, but (and even with a relatively great abundance) also of the lower animals; it is true of those animals which we, in our ignorance of their real psychoses and of the sources of their psycho-physical activity, consider among the lowest. It is true of bees, of ants, and of beetles, and even—as the study of the psychic (?) life of micro-

organisms is pointing out — of many of those tiny specks of protoplasm that biology, previous to the more careful use of the higher powers of the microscope, talked of as “undifferentiated” matter of life! Nay, it is true of not a few of the plants as well.

Again, then, are we brought face to face with the dependence of all the self-conscious and the conscious life of the human mind upon the activities of that of which it is not itself immediately conscious. This dependence is complete; it is not limited to rare occasions, or to conscious activities that have a dramatic effect upon the casual and thoughtless observer. It is a dependence which accompanies and interpenetrates, and is necessary to explain, the entire life of consciousness. It is equally necessary to explain all psychoses and all forms of motion that give indication of originating in a mental ground. Shall we, therefore, declare that the postulate of Absolute Mind, working at the basis of human mental life as of all psychical life, must be accepted as a helpful, or necessary, postulate for descriptive and explanatory psychology? We believe this to be true. *We believe that the true interpretation of those facts on which the alleged law of a complete psycho-physical parallelism relies, requires that monistic metaphysics which postulates the immanence of Absolute Mind in all finite reality; and of Absolute Will as the ground and source of all those so-called causal connections which psycho-physical science, and every form of science, both assumes and discovers.* But in simply raising this question we have taken our appeal before the supreme court of general philosophy.

It is now evident that it is not the extraordinary need of any hypothesis of “subliminal” or unconscious mental processes, in order to explain known conscious activities, which can justify us in maintaining the permanency of mind whenever no conscious activities are taking place. It is simply the vague but persistent working of that popular form of metaphysical impulse which makes men imagine that every

being must permanently abide between any two times when, as it is said, it "manifests itself." Suppose, however, that any particular being never again manifests itself at all; suppose that we have to deal with a case of the cessation of conscious states to be followed by no resumption of such states as actually unite with those previous into the continuous life-history of a soul, — why, then, of course, it must be admitted that this particular soul no longer exists. But such an admission is equivalent to admitting everything for which our attempt to apply a critical metaphysics to the phenomena of consciousness has been contending.

To sum up the entire argument, — to speak of unconscious psychoses or mental states as belonging to the mind is to use words that are quite unintelligible. The states of consciousness, as they are known, require for their explanation no such hypothesis. The attempt to form a metaphysical conception of mind which does not include consciousness as the one characteristic that distinguishes mind from not-mind must always remain a vain attempt. Only as an empty potentiality of a renewal of the stream of consciousness does the popular metaphysics believe in the permanency of mind while unconscious. But what in reality does account for all those performances *in our consciousness* which give token of a mentality of *which we are not conscious*, — this is a question for general philosophy to consider. Our minds, however, when considered in the most thoroughly reflective way, do undoubtedly indicate a ground for themselves in some Other than themselves, considered simply as subjects of conscious and self-conscious states.

CHAPTER XII

PLACE OF MAN'S MIND IN NATURE

THERE is no doubt that the interest which men have taken in speculations as to the real existence and nature of the mind in dream-life, swooning, and other conditions of consciousness, has been largely due to the bearing of these speculations upon the doctrine of immortality. The same thing is also true of the discussion of certain problems involved in the titles reality, identity, and unity, as applied to the mind. It was the supposed demonstration of the immortality of mind from its so-called nature, as this latter conception was constructed by a crude combination of the principles of reality, identity, and unity, which Kant subjected to criticism under the form of the "Paralogisms of Pure Reason." Both the alleged demonstration and its critical refutation were, however, alike remote from the lines laid down by a truly scientific study of actual mental life. The claim of both to an *a priori* character is seen to be unjustifiable in the light of scientific empirical psychology.

More particularly, the conceptions which Kant, and those whose argument for the immortality of the human mind he criticised, attached to the terms reality, identity, unity, and permanence (or kindred terms), when applied to the subject of the phenomena of consciousness, arise largely from misleading figures of speech. These terms, in the meanings which both parties to the controversy gave to them, are not really applicable either to the Ego regarded as self-known or to the so-called "transcendental Ego," — the Self considered

as "thing-in-itself." The Kantian criticism, if it could be looked at merely as an *argumentum ad hominem*, would be more conclusive. But it cannot be so regarded; for the very point on which the refutation turns (namely, the "paralogism," or alleged illusory substitution of the mental representation of a logical subject of thought for the known "real subject in which that knowledge inheres," etc.) is itself incapable of being thought out in consistency with our actual experience. We may declare, then, that the old theological dogmatism had built up an argument for the immortality of the soul which, if it had been valid as an argument, would have reached conclusions possessing no practical, æsthetical, or ethical value; and, with equal confidence, that the criticism which is nowadays said forever to have refuted this dogmatism only destroyed what was of no value, by a process of reasoning as inapplicable to the subject in hand, and as unintelligible in its use of terms, as was the refuted dogmatism. The whole subject of immortality therefore, requires an entirely new psychological and metaphysical treatment.

The so-called arguments for the immortality of the human soul really consist of a variety of considerations which tend to render reasonable the faith, or hope, that it is so. The more important and decisive among these considerations concern the nature of the World-Ground, the plan which the system of things and minds is serving (whether this plan is ethical or not, and what its final purpose is, if any such purpose there be), and the relations which the soul sustains to the World-Ground,—or its place in the planful system of things and minds. Such considerations, of course, lie beyond the comparatively narrow sphere of our present philosophical inquiry. And yet the voice of psychology and of the philosophy of mind is by no means insignificant here. Indeed, in our judgment, all inquiry into the reasonableness of the belief in immortality should take its start from the psychological point of view. To this point of view it should also be brought

back just so often, at any rate, as the discussion tends to wander into the regions of unintelligible speculation. Equally true is it that by the deathlessness of mind something must be meant which accords with our previous critical discussion of the reality, identity, unity, and permanence of mind. To speak more plainly, it is folly to talk of the mind continuing in being when we have ceased to attach to our words any conceptions defining the nature of the being continued, or the nature of its alleged continuance. We shall now briefly pass in review the results of the metaphysical treatment of mental life, so far as they have an immediate bearing upon the doctrine of its continuance after death.

The immortality of mind cannot be proved from its nature regarded as that of a real self-identical and unitary being; nor is its permanence, as known to itself, of an order to allow the sure inference of its continued and permanent existence after death. As to what is the real nature of mind, the science of psychology empirically pursued and extended by cautious and legitimate reflective thinking affords, however, a sure means of judgment. This by no means enables us to affirm a *non posse mori* of the soul of man. If then, by the "natural immortality" of the mind it is meant to claim that its existence may be known to be of such a character as to be incapable of ceasing to be, it is folly to assert the doctrine of natural immortality in the name either of the science of psychology or of the philosophy of mind. For it has been abundantly shown that the reality, the identity or self-sameness, and the unity of mind cannot be maintained even in this bodily life without self-consciousness, recognitive memory, and reflective thinking. It has also been shown that the continued existence or permanency of mind, regarded as bridging over the gaps in this constitutive experience, is a metaphysical hypothesis which is warrantable and intelligible only if self-consciousness, recognitive memory, and reflective thinking actually exist again on the other side of each gap. And finally, no

answer can be given to the question, In what that has any value or meaning does the existence of the mind consist, if once these actual activities in consciousness have ceased? *To live on forever as mere unconscious mind-stuff would be no whit better than, and not different from, once for all perishing as mind.*

But self-consciousness may sink down to zero, and even consciousness, as still existent in the lowest forms of dream-life or in half-animal maunderings, may dip "below the threshold," — as psychology is wont to say. The continuity unimpaired forever of the real, self-same, and unitary being of mind, as belonging to its nature, cannot therefore be deduced from what we know by experience of its behavior as the subject of conscious states. As far as clear knowledge goes, it appears rather to be the habit of the mind to lay aside betimes all manifestations of its being; and when they are in fact laid aside, there is nothing of any worth to which our faith or hope can attach itself, except the prospect of their resumption again in the future.

On the other hand, the conception of such reality and unity as that which we indubitably know to belong to the very nature of the human mind raises it in the scale of being incomparably above all existences which lack these characteristics. The known reality, identity, and unity of every soul is indeed a priceless possession. It is also a possession which places its own dignity, in its own estimate, far above that which can be assigned to things. Moreover, such forms of mental activity are themselves among those which seem most incomparable with any of the manifold activities of things. They appear, even from the point of view taken by explanatory psychology, as most distinctive of the superior nature of mind, — unaccountable, pre-eminently, by virtue of any connection of mind with things. It is this indubitable self-known nature of the mind as revealed to itself in the actual exercise of its so-called higher faculties which gives it the appearance of a

certain *independence* of existence. Strictly speaking, indeed, no such condition as an "independent" — or totally unrelated — existence can be maintained by any form of being, whether physical or psychical. All those elements of material reality which the metaphysics of physics assumes as original and independent of change, and on which it makes dependent every kind of complex being and every kind and degree of change (that is, all the existence and transformations and transactions of things), are themselves dependent upon each other for their being and for all their characteristic modes of behavior.

The existence which we call "the Mind" is never known — even when observed in its most exalted states and in the exercise of its most highly spiritual activities — as released wholly from bodily conditions. On the contrary, the existence and functioning of the brain appears still as the indispensable precondition or concomitant of the existence and activity of the mind even in these its most highly spiritual forms of activity. Moreover, the stream of consciousness rarely or never runs quite clear of coloring by the material of sensation-experience thrown into it, as it were, from the peripheral organs of sense, from the thoracic and abdominal cavities, and probably also from the lower ganglia of the brain. At the same time, in all forms of knowledge and especially in self-knowledge, with its equipment of realized æsthetical and ethical sentiments and of self-conscious choices, the mind manifests and knows itself as manifesting an existence in some sort independent of the bodily organism. With no mere figure of speech we are compelled to say, every mind thus *transcends* completely, not only the powers of the cerebral mechanism by springing into another order of phenomena, but also the very existence, as it were, of that mechanism by passing into regions of space, time, causality, and ideality of various kinds, where the terms that apply to the existence and activity of the cerebral centres have absolutely no meaning whatever.

For example, the human mind anticipates the future and predicts, on a basis of experience in the past, the occurrences which *will be* but are not now. Into this future, which is itself the product of its own imagining and thinking, it projects its own continued and yet characteristically altered existence, as well as the continued similar existence of things. But the existence of the brain, and of its particular forms of nerve-commotion, is never other than a purely here-and-now existence. This physical existence is, therefore, transcended in an absolute way by every such activity of the mind. Moreover, all knowledge, as such, enforces the same conviction as to a potential independency of the mind, inferred upon the basis of our actual experience with mental activities in the way of transcending the sphere of the correlated being and activities of the brain. For all knowledge is of the universal. In knowing, the mind moves in the sphere of so-called "law," of "genera" and "species," of "relations common" to many individuals, of the "categories," of the true for all spaces and all times and circumstances. But the existence of the brain is never other than concrete and individual; its being is at every instant precisely such and no other, — so many countless atoms of oxygen, hydrogen, carbon, nitrogen, phosphorus, and the like, combined in precisely such proportions; its character is, indeed, never twice the same; it never partakes of the unchanging, but only consists in and of the ceaseless flux of materials brought by the blood-supply and excreted in the urine, the fæces, and in other ways.

While, then, the material conditions of all mental life contain the correction and rebuke of the transcendentalists' high-flown declamation about the supremacy and independency of the soul, yet that same declamation is in some sort justified as representative of truths which scientific psychology is quite too prone to overlook, — because, forsooth, they do not lend themselves readily to its attempts at a strictly scientific treatment. These truths are truths, however; they

are truths of fact that are realized in the experience of every fully developed human soul. To say that they demonstrate the soul's power to exist after the bodily substrate has been removed is to affirm of them more than they can sustain. But to deny that they suggest the possibility, or even — perhaps we may say — the probability of this continued existence is to deny to them more than there is need.

When, now, the question as to the immortality of mind is taken to the phenomena with which physiological psychology and psycho-physics more especially deal, we may most satisfactorily express the results of inquiry by affirming a *non liquet*. Here, undoubtedly, it is that the deniers of the doctrine of immortality are strongest in their appeal to the facts. For the facts show beyond dispute that the soul *may* lose all the being which it can claim to have, on account of the failure of its material conditions as these conditions are supplied by the existence and satisfactory working of the cerebral organism. For the fact appears to be that under certain material conditions the mind ceases from all that in which its only known and intelligible being actually consists.

But, then, there are other facts of the same general order which must also be taken into the full and final account. These are in fact such as have just been referred to as indicating a sort of independency of bodily conditions for the mind. It is also a fact of which we have repeated experience that after brief periods of cessation, either from all forms of activity or else (more especially) from the so-called higher forms of its activity, the mind resumes its being with renewed vigor and fulness of power. There are also many strange facts, such as are occasionally observed in the case of the dying, or are reported by those who have been in conditions of extreme ecstasy, of clairvoyance, of apparent syncope or death, that cannot wholly be set one side. These suggest possibilities of no little interest and importance, even if — as must be admitted — they do not demonstrate the conclusions

desired. There are also all those facts which show that the mind constantly reacts upon the bodily organism, as though to give proof in and through it that although the two are somehow just now companions in a living development, they might possibly part company without either of the two, for that reason alone, ceasing wholly to be. Trembling of the limbs and quivering of the abdomen, increased susceptibility of the areas of the skin to cold, disturbances of the cerebral circulation, fall or rise in the bodily temperature of a few degrees, slowing or quickening of pulse, etc.,— all these physical changes produce important changes in the mental states. But, *per contra*, if the soul chooses to grieve, or to give way to depression or to ennui or to chagrin, the body is compelled to undergo a series of corresponding changes.

Let it be called, then, a "drawn battle" when the defenders and the deniers of the doctrine of immortality enter the arena of physiological psychology and fight fairly and honorably together there for the life or death of the human soul. And so we may return from the discussion of the question on grounds of the science and metaphysics of mind with a faint but reasonable confidence in the possibility of its affirmative answer as our net result. But as was seen at the close of the last chapter, our view as to the permanence of mind—especially as to its permanence after the death of the body—depends upon the place which the mind must be thought to hold in the system of nature. More definitely, in other words, our reliance must be upon philosophical conceptions of the Being of the World (the nature of the "World-Ground") and of the relations which the being of the human mind sustains to such Universal Being, in order to raise this faint confidence in the possibility of the immortality of mind to the condition of a firm, rational faith or hope. But these conceptions can be formed and defended only by philosophy at large, and especially by ethical philosophy and the philosophy of religion. It is only in cultivating these fields that one is able, so far as

such a thing is possible at all, to find by reflective thinking the place of man's mind in that system of beings which constitute the world, and to discuss the probability of the continuance of mind after the death of the body.

When constructing the title of this chapter ("The Place of Man's Mind in Nature") it was by no means intended to indicate that so large a theme would be at all comprehensively discussed. To conduct such a discussion to any worthy extent several other sciences besides psychology must be drawn upon; and, as has just been repeatedly said, such a discussion involves branches of philosophical discipline much wider than those which it is intended to cultivate here. Among the sciences involved are especially all those that enter into anthropology, in the widest extension of the term. Among the branches of philosophy involved, ethics and the philosophy of religion have been mentioned again and again. In closing our much narrower task, however, we are prompted to indicate one direction which subsequent researches, if it becomes possible to undertake them, will be compelled to follow.

The view which has thus far been advocated of the being of the mind, of the body, and of the relations between the two will doubtless be rejected somewhat contemptuously by many, as an old-fashioned and obsolete Dualism. If by "dualism" be meant a dissent from all those forms of theory which assert the substantial identity of body and mind in either one of the two existences (in either body or mind), or in some third somewhat which is neither of these two, but of which both these are to be regarded as "aspects" or "faces," etc., then we do not in the least shrink from being accused of advocating a dualistic theory. For it has been shown beyond question that each of these forms of so-called Monism, from which our dualism dissents, is quite inadequate to meet the demands either of scientific explanation for admitted facts or of clear and consistent reflective thinking. In other words,

Materialism, Spiritualism, and Monism of the pattern in which that doctrine is affirmed by Höffding, Bain, and many others, are all alike both unscientific and unphilosophical.

Especially is that tenet which arrogates to itself the title of "monism" in an exclusive way, and which not infrequently assumes to be the only speculative view that can appeal with confidence to modern psychological science, quite deficient in both these two important regards. It is neither scientific nor philosophical. The alleged scientific basis for such a speculative tenet in the empirical law of psycho-physical parallelism will not bear careful examination. Where it is clear in meaning, this law is altogether too meagre to meet the real facts of the case; and when the effort is made to enlarge the law so as to provide under it for all the facts, it becomes hopelessly confused in meaning. Moreover, the metaphysical argument and conclusions based upon the alleged empirical law end in the unintelligible or in the absurd.

On the contrary, the speculative treatment of the facts and laws presented for our consideration by the science of psychology has led to a result which may be summarized in somewhat the following way. That being which we call the Human Mind realizes itself as a unique and living totality in a course of development. Its origin, so far as science can trace it or imagination and thought frame the conception of it, lies in the first obscure acts of consciousness that probably arise early in the life of the embryo. These acts increase in complexity and significance as they are successively repeated in the so-called stream of consciousness. As respects their content, the later ones are dependent upon the earlier; and as respects intensity, time-rate and duration, quality and combination of sensation-elements, they are all dependent on the action of external stimuli upon the periphery of the nervous system.

But from the earliest discernible periods an activity of discriminating consciousness which gives token of the dawning

of intellect, and the consciousness of a self-activity that is the peculiar psychical element for which the words conation and will are reserved are to be detected. By its own self-realizing activity — discriminating, and in the form of growing voluntary attention directing and even creating the content and flow of the stream of consciousness — it becomes a Self to itself. It sets itself as subject of its own experiences over against those experiences, and attributes them, in all their diversity of intensity, quality, and complex content to itself; and it sets itself, in a most marked and emphatic manner, over against and in opposition to all the things of its experience, whether perceived, imagined, or thought. Thus progressively does it actively constitute and understand itself as a real, self-same, and unitary being, — in the meaning which these words have to the actual life of self-consciousness, of recognitive memory, and of reflective thinking. It recognizes its own dependence on the bodily states, — that is, the necessary connection of its self-consciously experienced bodily pains and pleasures, and indeed of its more purely spiritual states, with the perceived or inferred condition of the bodily areas. At the same time it also believes that in some sort these bodily members are dependent upon its desires, ideas, and volitions for their perceived or inferred changes. And nothing that the most subtle and extended investigations of science can bring forward to show, in the least impairs the essential truthfulness of both these forms of the popular persuasion.

Thus do psychological science and the metaphysics of psychology reach the conclusion — to quote a declaration which we have elsewhere emphasized — that “the development of mind can only be regarded as the progressive manifestation in consciousness of the life of a real being which, although taking its start and direction from the action of the physical elements of the body, proceeds to unfold powers that are *sui generis*, according to laws of its own.”

On the other hand, the scientific study of bodily development takes us in a totally different direction,—namely, out into the general field of so-called nature, with its variety of living physical forms. The same atoms constitute its most precious and highly organized substances (for example, the protagon of the cerebral centres) as those which are found in other animal tissues,—nay, even in the surrounding air, in the water, the soil, and the plants. Indeed, these atoms actually come from such sources and return—some of them very speedily, within a few minutes or hours—whence they came. The chemistry of the cerebral tissues, and their molecular physics, their thermic, electrical, and magnetic changes, so far as we know anything about these obscure matters, also connect our bodies with the rest of nature as falling under its laws. We have absolutely no right to assert any new kind of existence for the body on account of the temporary relations in which some parts of it, especially, stand to the phenomena of consciousness. It always is, as a real thing, precisely what it was at the beginning, and before the beginning, of its being as *our* body; it is part and parcel of nature's physical "stuff." Its reality, identity, and unity are merely formal; not one of these words applies to it in any respect as they all apply to the being of the mind.

Yet again, the connection so-called between the development of the unique being of the mind and the development of that temporary and constantly changing complex of physical elements which we call the body, is undoubtedly most intimate and peculiar. Or rather—since to use the singular number of this word "connection," or of any other available word, is fraught with the most misleading and mischievous consequences—an indefinite variety of peculiar and close relations, or connections, exists between the body and the mind. These cannot be diminished or ~~their actual concrete~~ existence destroyed by any manner of vain attempts to summarize them in a single

term, or to foist in over them rather than duly to generalize from them any one supreme law. They are what they are; and the business of psycho-physical science is to accept and so far as possible to explain them. But *thus far the progress of science has been in the direction of disclosing a greater and ever greater and more bewildering complexity of relations, rather than in the reduction of already known relations to terms of a few simple formulas.* The truth of this statement needs no defence before those who have any genuine acquaintance with the work going on in psychological laboratories, or with the already vast and constantly increasing literature which these researches produce.

For example, the phenomena of attention and the relations of this psychical activity to the conditions of the muscular system and of the end-organs of sense might well, previous to detailed examination, have been supposed to be a simple affair. So, too, the English Associational School, as represented by the Mills, made a brave show of reducing all mental phenomena under the so-called "laws of the association of ideas;" and the only question which at one time seemed to them worth debating was as to whether all these laws could not be summarized in one. But it is now known that not a school-child reacts with attention and discriminating consciousness to the simplest form of stimulation without furnishing thereby a psycho-physical problem so infinitely complex that our present resources for the mere disentangling of its elements are speedily exhausted. Starting out from the physical side, we seem to see that height and weight and age and sex and parentage and climatic conditions (thermic, electrical, the amount of moisture in the atmosphere, etc.), and possibly more obscure telluric influences of an unaccountable kind, and the amount and quality of the last night's sleep, and the quantity and kind of food taken for the preceding meal, and numberless other preconditions, determine so seemingly simple a result. But start-

ing from the psychical side, the complexity of the connected factors is not less great. And among them there is always to be reckoned with, as unique and quite incalculable, that peculiar self-activity of the conscious subject whose very essential characteristic is that, *as such*, it appears in consciousness unrelated to and independent of the bodily conditions, although it undoubtedly varies in intensity in a complicated dependence upon them.

And why, indeed, should it be expected that the case as between body and mind would be otherwise? Even the "nature" of the atoms (each one) is determinable in thought only as a vast and indefinite complex of relations between each kind and all the other kinds; and for the statement of this complexity no one word, or single formula, is at all adequate. Who, then, can have any respect for the simplicity (which is *simplicity*, indeed) that would try to provide for the relations between such a being, with its historical development, as is the human soul, and such an infinite number of atoms of so many kinds as constitute the brain, with some one high-sounding but largely meaningless or absurd phrase? As for us, we have no more respect for much of the new-fangled jargon about "psycho-physical parallelism" than for the old-fashioned talk about "tenement," or "tabernacle of clay," etc. The one is scarcely more scientific or instructive than the other. Nor have we any more fear for the sneers of those men of science whose wishes express themselves in rash conclusions as to the undoubted validity of this so-called law, than for the dogmatism of the theologians who would pin the faith of men to untenable views as to the so-called transcendency and spirituality of mind. All the words that men have ever employed to express the relations of body and mind, when properly limited and understood as naïve figures of speech, assert some undoubted truth;¹ but they serve to

¹ For the meaning of such terms as "organ," etc., when applied to the relations of body and mind, see "Elements of Physiological Psychology," pp. 634 f.

convey it as a real truth only to those who can think out the meaning of these figures of speech into terms of actual, concrete experience. But no one term — and not all of the terms together — sets forth the whole truth. For body and mind exist and develop in company with the varying expression of an indefinite number of changing relations. They are not the same; neither do they run wholly parallel in their activities and course of development. The body begins to be as a part of nature at large; and it develops in constant dependence, in an indefinite variety of ways, upon nature, and also upon the being and development of the mind with which it is, as we say, connected. The mind begins to be in dependence upon the body, but not, in the same sense of the words, as a part of nature. It not only develops in most immediate dependence upon the body, and through the body upon nature at large, but it also takes in hand its own development. It sets for itself ends, which it has chosen; and it determines, within limits, the bodily conditions and movements to the realization of these chosen ends. This is not mere "parallelism;" it is not mere use of an "organ" by an agent; it is not mere inhabiting of a "tenement;" it is not mere being "seated" as on a throne. All such figures of speech do not simplify, do not enable us the better to understand; they must all themselves be understood by being interpreted into those actual, concrete, but related performances of the two beings — body and mind — which scientific study discovers and, as far as possible, reduces to general terms.

The summing-up of the whole matter for psychological science and for the metaphysics of mind is, then, undoubtedly dualistic, so far forth. There are in fact *two* beings to be reckoned with. It is vain to talk as though they were, in any intelligible meaning of the word, one. The body is not mind; nor does it produce or by its behavior account for the being, the activities, or the development of mind. The

mind is not the body; nor does it create or by its behavior wholly determine or account for the activities and development of the body. Nothing is gained to science or to philosophy, but rather great confusion produced for both, by advancing the doctrine of the identity of the two in some one being that is somehow apart from nature at large, and yet acts as the ground of both sets of phenomena, without being either matter or mind.

But undoubtedly, too, this Dualism is not the final word, not the ultimate solution of the problem of body and mind and nature at large, in their complex relations to each other. On the contrary, the conclusion of the metaphysics of mind, as thus far carried upon a basis of scientific psychology, still takes the shape of a burning question. It is a question all the more aflame because its many threads have been unravelled from so many forms of confused net-work, and have been at least loosely twisted together into a common cord. Here is a problem which has been prepared by the lower court in order that it may be carried to the supreme court for final adjudication. Nature and body and mind cannot be left by rational mind itself in this condition of separateness. The phenomena which we ascribe to each are in experience always interrelated. Nature is never known except as by mind in relation to itself through the bodily organism. Body is never known except by mind as related to itself and to Nature at large. Mind is never self-known except as existing in relation to body and to nature. Some unifying principle must be discovered as really existent, upon which can be imposed the task of accounting to the mind for this complex system of relations. This dualism — or rather multiplicity of connections among things and body and mind — must undoubtedly be dissolved in some ultimate monistic solution.

The Being of the World, of which all particular beings are but parts, must then be so conceived of as that in it can

be found the One Ground of all interrelated existences and activities. And it is our firm conviction, for the reasons for which we hold ourselves responsible in due time to give answer, that the nature of our minds and the relations they sustain to the several bodies we also call our own can be understood only if it be granted that this One Principle is an Other and an Absolute Mind. The human mind cannot be produced by the body; out of the unconscious and irrational the conscious and rational cannot be explained. Yet our mind cannot be held responsible for the creation of its own body or of nature at large. This body is also too much a temporary loan from nature, that must momentarily be acknowledged as a debt to be paid, for us so to unite it with the mind as to identify the two in a third unknown somewhat. But of nature, mind, and body, all alike, it must be said: In Him who is the one World-Ground both it and we "live and move and have our being." At any rate, whether this be not so is the question which this treatise hands over to the larger and all-inclusive domain of Philosophy.

INDEX

- ABSOLUTE MIND**, the conception of, 257, 284, 286 f., 317 f., 394 f., 412 f.; relation of, to finite mind, 392, 397 f., 403 f.
- Archer, Wm.**, on consciousness of actors, 180 (note).
- Associationalism**, inadequacy of, 75 f., 408 f.
- Automatism**, the psychical nature of, 169 f.
- BALZAC**, dramatic consciousness of, 181 f.
- Belief**, as element in knowledge, 228 f.
- Body**, relation of, to mind, 208 f., 237 f., 253 f., 271 f.; nature of, 254 f.
- Büchner**, his materialism, 284.
- CAUSATION**, as applied to body and mind, 212 f., 232 f., 258 f.; origin of the conception of, 218 f., 230 f.; law of, 223 f., 229 f., 234 f.
- Conation**, as related to the concept of mind, 86 f.
- Conception**, nature of, 93 f.
- Consciousness**, as respects its content, 86 f.; of the Self, 101 f., 127 f., 174 f., 250 f.; of identity, 148 f.; so-called "double," 164 f., 179 f., 183 f.; the ethical, 183 f.; threshold of, 191 f., 380 f., 399 f.
- Creationism**, theory of, as to mind, 364 f.
- DESSOIR, Max**, on "double consciousness," 175 (note).
- Dreams**, "dramatic sundering of Ego" in, 178 f.
- Dualism**, its uncritical form, 6 f., 11 f., 285; the critical, defined, 288 f.; and defended, 351 f.
- Ego**. See Self and Mind.
- Energy**, conception of, 213 f., 218, 225 f.
- Epistemology**, the, of natural science, 9 f.; nature of, 81 f.
- FLOURNOY, M.**, on metaphysics and psychology, 28 f.
- HODGSON**, metaphysical standpoint of, 28.
- Höffding**, views of psychology and metaphysics, 18 f.; his Monism criticised, 319 f.; his mistaken view of Lotze, 319 f.
- Huxley**, philosophical tenets of, 11 f.
- Hypnotism**, "double consciousness" in, 164 f., 186 f.; general phenomena of, 277 f.
- IDENTITY**, hypothesis of, 20 f., 322 f., 347 f.; consciousness of, 148 f.; the, of things, 150 f.
- Immortality**, of mind, 205 f., 397 f.
- Inspiration**, psychical automatism in, 172 f.; Philo Judæus' view of, 173 f.
- JAMES, Wm.**, on metaphysics and psychology, 24 f.; on self-knowledge, 103 f.; nature of the Ego, 163 f.
- KANT**, on nature of psychology, 1 f.; psychological fallacies of, 99 f.; on ethical consciousness, 183 f.; on immortality, 206; on "paralogisms of pure reason," 396 f.
- Knowledge**, nature of, 98 f., 115 f., 229 f., relation of, to principle of causation, 229 f.

- LOTZE, on self-feeling, 249; nature of the body, 255 f.; on materialism, 294 f.; his dualism, 319 f.; on the origin of mind, 366.
- MATERIALISM, defined, 288 f.; criticised, 290 f.; its unintelligibility, 302 f.
- Maury, M., on "double consciousness" in dreams, 179.
- Memory, knowledge from, 130 f.
- Metaphysics, need of, in psychology, 1 f., 23 f., 28 f., 42 f., 57 f.
- Mind, concept of, 83 f., 106 f.; reality of, 113 f., 125 f., 147, 197 f.; identity of, 148, 162 f.; unity of, 189 f., 194 f., 202 f., 369 f.; relation of, to body, 208 f., 237 f., 253 f., 271 f.; origin of, 356 f., 358 f.; permanence of, 366 f.; its place in nature, 397 f.
- Monism, a scholastic doctrine, 242 f.; its two kinds, 284 f.; defined, 288 f.; its attitude characterized, 314 f.; its tenets criticised, 317 f.
- NEWTON, attitude of, to metaphysics, 6 f.
- PHENOMENISM, M. Flournoy's criticism of, 33 f.; legitimate outcome of, 211 f.
- Philosophy, relation of, to psychology, 1 f., 15 f., 18 f., 24 f., 41 f., 65 f., 73; nature of, 64 f., 70 f.; kinds of, 288 f.
- Prophetism, consciousness of, 182 f.
- Psychology, relation of, to philosophy, 1 f., 41 f., 52 f., 73; "without metaphysics," 6 f., 42 f., 60 f.; nature of, 52 f.
- Psycho-physical Parallelism, principle of, 29 f., 36 f., 61 f., 240 f., 319 f.; Höfding's view of, 319 f.; the principle criticised, 331 f.
- REAL, the metaphysics of, 78 f.
- Realism, psychology of, 49 f.
- Reality, the correlate of knowledge, 97 f., 115; conception of, 119 f.
- SCIENCE, metaphysics of, 7 f., 10 f., 212 f.
- Self, nature of the knowledge of, 90 f., 95 f., 127 f., 155 f., 248 f.; individualizing of, 102 f.; dramatic sundering of, 175 f.; as distinguished from things, 245 f.
- Solipsism, 33 f., 211 f.
- Soul, conception of, in psychology, 51, 89 f.; in philosophy, 111 f., 287 f.
- Spencer, his conception of philosophy, 69 f.
- Spinoza, on relations of mind and body, 20 f., 239 f.
- Spiritualism, defined, 288 f.; criticised, 305 f., 384 f.
- Sufficient reason, principle of, 224 f., 227 f.
- THINGS, how distinguished from mind, 245 f.
- Thompson, D. G., on nature of Ego, 163 f., 201.
- Thought, as related to reality of mind, 140 f.
- Traducianism, the theory examined, 360 f.
- VOGT, his materialism, 298 f.
- Volkman, his views of psychology and metaphysics, 44 f.
- WARD, Dr., on conception of causation, 219 f.
- Weber, law of, its significance, 262 f.
- World-Ground. See Absolute Mind.
- Wundt, criticised by M. Flournoy, 29 f.; his views of psychology and metaphysics, 49 f.

THE PHILOSOPHICAL WORKS

OF

GEORGE TRUMBULL LADD

Professor of Philosophy in Yale University.

PSYCHOLOGY: Descriptive and Explanatory.

A Treatise of the Phenomena, Laws, and Development of Human Mental Life. By GEORGE TRUMBULL LADD, Professor of Philosophy in Yale University. 8vo, \$4.50.

The book is designed to cover the entire ground of descriptive and explanatory psychology in a summary way, reserving speculative discussion and the philosophy of mind for another volume. It is carefully adapted to the needs of pupils and teachers, while not exclusively prepared for them.

The point of view taken leads the author into an analysis of all the mental processes, but especially into the endeavor to trace the development of mental life, the formation and growth of so-called "faculty," and the attainment of knowledge and of character.

After two introductory chapters on the Nature and the Method of Psychology, the three main divisions are as follows: 1. The Most General Forms of Mental Life. 2. The Elements of Mental Life. 3. The Development of Mental Life.

Critical Estimates of the Work.

"I know of no other work that gives so good a critical survey of the whole field as this."

—Prof. B. P. BOWNE, Boston University.

"Any writing of his is a matter to be grateful for. This book will largely increase our debt."

—Prof. G. H. PALMER, Harvard University.

"I shall take pleasure in recommending Professor Ladd's new book on psychology to my classes as a most thorough and exhaustive treatment of the subject."

—Prof. J. H. HYSLOP, Columbia College.

"As a calm, scholarly, and thoroughly scientific treatise, covering in a single volume the entire field of descriptive and explanatory psychology and written in an attractive style, the book has not its equal in English or German."—Prof. G. M. DUNCAN, Yale University.

"It is a distinct honor to American scholarship to have produced it."

—Prof. H. N. GARDNER, Smith College.

"It will be well-nigh indispensable to teachers of psychology, and will make an admirable text-book with classes sufficiently advanced to understand and profit by its discussion."

—President E. H. CAPEN, Tufts College.

"I shall at once recommend its use by my classes."

—Prof. J. W. STEARNS, University of Wisconsin.

ELEMENTS OF PHYSIOLOGICAL PSYCHOLOGY

A Treatise of the Activities and Nature of the Mind from the Physical and Experimental Point of View. By GEORGE TRUMBULL LADD, Professor of Philosophy in Yale University. 8vo, \$4.50.

This is the first treatise that has attempted to present to English readers a discussion of the whole subject brought down to the most recent times. It includes the latest discoveries, and by numerous and excellent illustrations and tables and by gathering material from scores and even hundreds of separate treatises inaccessible to most persons it brings before the reader in a compact and yet lucid form the entire subject.

The work has three principal divisions of which the first consists of a description of the structure and functions of the Nervous System considered simply under the conception of mechanism without reference to the phenomena of consciousness. The second part describes the various classes of correlations which exist between the phenomena of the nervous mechanism and mental phenomena, with an attempt to state what is known of the laws which maintain themselves over these various classes. The third part introduces, at the close of these researches, the presentation of such conclusions as may be legitimately gathered or more speculatively inferred concerning the nature of the human mind.

"Professor Ladd deserves warm thanks for undertaking the preparation of such a work."

—*Mind*.

"He writes at once as a scientist bent on gaining the fullest and clearest insight into the phenomena of mind, and as a metaphysician deeply concerned with the sublime question of the nature of the spiritual substance."—JAMES SULLY in *The Academy*.

"Well written, in excellent tone and temper, in clear, even style, free from needless technicalities, and with due regard to the necessary difference between mere speculation or surmises and established facts."—*New York Times*.

"This admirable work by Professor Ladd deserves a hearty welcome from the English public as the first book of sufficient extent of subject matter and depth of thought to take the place in American and English literature that has been held since 1874 in both Germany and France by Wundt's 'Gründszuge der Physiologischen Psychologie.'"—*Westminster Review*.

"His erudition and his broad-mindedness are on a par with each other; and his volume will, probably, for many years to come, be the standard work of reference on the subject."

—Prof. WILLIAM JAMES in *The Nation*.

OUTLINES OF PHYSIOLOGICAL PSYCHOLOGY.

A Text-book of Mental Science for Academies and Colleges. By GEORGE TRUMBULL LADD, Professor of Philosophy in Yale University. Crown 8vo, \$2.00.

The volume is not an abridgment or revision of the larger book, *Elements of Physiological Psychology*, which is still to be preferred for mature students, but, like it, surveys the entire field, though with less details and references that might embarrass beginners. Briefer discussions of the nervous mechanism, and of the nature of the mind as related to the body, will be found in the "Outlines"; while the treatment of relations existing between excited organs and mental phenomena offers much new material, especially on "Consciousness," "Memory," and "Will."

Later chapters, considering mind and body as dependent upon differences of age, sex, race, etc., and giving conclusions as to the nature of the mind and

as to its connection with the bodily organism, reward the student who masters this book.

The author aims to furnish a complete yet correct text-book for the briefer study of mental phenomena from the experimental and physiological point of view. Both pupil and teacher have been considered, that the book may be readily learned and successfully taught.

"I think it an honor to American science and scholarship that the best English books on physiological psychology should come from an American university."

—J. MCK. CATTELL, University of Pennsylvania.

"As an introduction to the study of physiological psychology it is absolutely without a rival."

—H. N. GARDINER, Smith College.

"For its purpose there is not a better text-book in the language."—*The Nation*.

"The account he gives is a succinct and clear digest of the subject, and the illustrations leave nothing to be desired."—*The British Medical Journal*.

"An important contribution to the experimental and physiological study of mental phenomena."—*Glasgow Herald*.

"Professor Ladd, in giving to the world his 'Outlines of Physiological Psychology,' has reared a monument that marks a decided advance in the American literature of physiological philosophy. It will be a standard work."—*Boston Times*.

"For lucidity of statement and comprehensiveness of treatment within moderate limits Professor Ladd's 'Outlines' is, we believe, unsurpassed."—*Educational Journal of Canada*.

PRIMER OF PSYCHOLOGY.

By GEORGE TRUMBULL LADD. Professor of Philosophy in Yale University. 12mo, 224 pages, \$1.00 net.

This is an entirely new book, written by this eminent author expressly for elementary study, and will be found to meet the needs of a large number of schools and colleges. It is a remarkable book in its directness and simplicity, serving its purpose in bringing a very important and somewhat difficult subject easily within the reach of all.

The masterly scholarship of the writer is as noticeable here as in his more advanced works. He has also succeeded in putting a wealth of information into such form that it becomes rarely interesting and attractive.

CONTENTS: I. The Mind and Its Activities—II. Consciousness and Attention—III. Sensations—IV. Feeling—V. Mental Images and Ideas—VI. Smell, Taste, and Touch—VII. Hearing and Sight—VIII. Memory and Imagination—IX. Thought and Language—X. Reasoning and Knowledge—XI. Emotions, Sentiments, and Desires—XII. Will and Character—XIII. Temperament and Development.

FROM THE PREFACE.

"While adopting the title of 'Primer,' it has been my aim to avoid both of two extremes. One of these is the extreme of 'talking down' to the reader in such a manner as to keep unpleasantly before him his own lack of familiarity with the subject. The other extreme is that of dryness and of difficulty due to the excessive condensation without dropping the use of technical language and of strictly scientific modes. . . . In a word, this book simply aims to narrate some of the more obvious facts and principles known to modern scientific psychology in plain and familiar English, and in an orderly but wholly untechnical way. . . . As the dedication shows, a young friend was kind enough to offer herself as both subject for the experiment and judge of its results. I have tried to make my confidence in the intelligence of my youthful critic the measure of my success. . . . The book is not an abridgement of any other existing work."

INTRODUCTION TO PHILOSOPHY.

An Inquiry after a Rational System of Scientific Principles in their Relation to Ultimate Reality. By GEORGE TRUMBULL LADD, Professor of Philosophy in Yale University. 8vo, \$3.00.

The hope of the author, as expressed in the Preface and incorporated in the title, is that this book may serve to "introduce" some of its readers to the study of philosophy.

Among those for whom it is intended may be first mentioned the young in the later years of our higher educational institutions. It is, however, not a technical book for instruction, such being, in the opinion of the author, unbecoming a study of problems which invite reflection and end in opinion. But there are others who share in the general pursuit after a knowledge of philosophical questions. None who are thoughtful escape the mysteries of which life itself is made up, and to all earnest inquirers the book appeals especially. The language has been simplified to the utmost, though the questions are of such nature that new terms and unfamiliar language sometimes occur of necessity, yet all is found to be intelligible and clearly stated. Finally it may be said that the author has not left himself entirely concealed in the treatment of the subject. He modestly makes the confession that his own views, to an extent positive as well as critical, appear in the pages, and to the public this makes the book of double value and interest.

CONTENTS: The Source of Philosophy and its Problems—Relation of Philosophy to the Particular Sciences—Psychology and Philosophy—The Spirit and the Method of Philosophy—Dogmatism, Skepticism, and Criticism—The Divisions of Philosophy—The Theory of Knowledge—Metaphysics—Philosophy of Nature and Philosophy of Mind—Ethics—Æsthetics—Philosophy of Religion—Tendencies and Schools in Philosophy.

"The study of this book will be a discipline in shrewd and portrayed reasoning, and open up a world of ideas that will add scope and enjoyment to the student's mind. We give it our unqualified endorsement."—*The Quarterly Review*.

"In all its aspects we are sure Professor Ladd's work will be welcomed."

—*Herald and Presbyterian*.

"The entire discussion is fresh, candid, and able. It is not only an introduction, it is also a contribution to philosophy."—*Post-Graduate Wooster Quarterly*.

A Descriptive Text-book Catalogue for the current year, containing a large list of books in all departments of college, seminary, and university work, will be mailed free on request; also a complete Text-book Price-list for teachers and Catalogue of Miscellaneous Publications.

Correspondence invited.

CHARLES SCRIBNER'S SONS,

153-157 Fifth Avenue,

New York.

UNIVERSAL
LIBRARY



122 402

UNIVERSAL
LIBRARY